THE SILVER LINE

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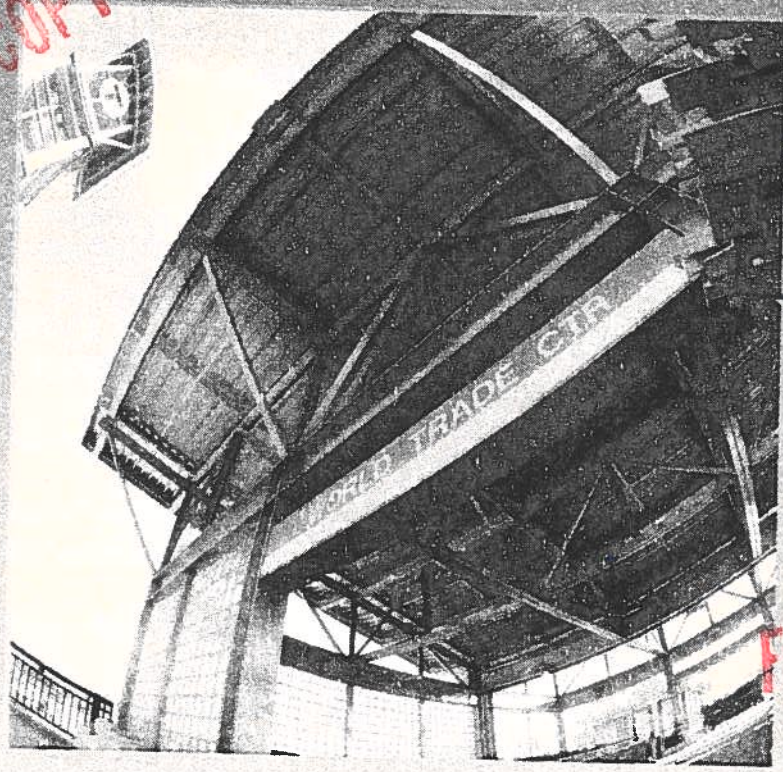

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ANNUAL UPDATE

Pursuant to Massachusetts General Laws Chapter 30, Section 61
Impact on the Natural Environment

South Boston Piers Transitway
Boston, MA
(EOEA #6826)

Washington Street/Silver Line Transit Service and Roadway Improvements
(Dudley Square to Downtown Boston)
Boston, MA
(EOEA #11707)

Submitted to: Massachusetts Executive Office of Environmental Affairs - MEPA Unit

Applicant: Massachusetts Bay Transportation Authority

October 2002

SILVERLINE

Massachusetts Bay Transportation Authority

Jane Swift
Governor

James H. Scanlan
Secretary and MBTA Chairman

Michael H. Mulhern
General Manager

October 31, 2002

Re: ***Silver Line Annual Update (EOEA #11707/EOEA #6826)***

Dear Reviewer:

Attached, please find a copy of the MBTA's 2002 Annual Update for the MBTA's Silver Line. In accordance with the Secretary's of Environmental Affairs MEPA Certificate dated August 9, 1999 on the above referenced MEPA filings, the MBTA prepared the Silver Line Annual Update. The Secretary's Certificate required annual updates. The 2001 Annual Update specifically focused on:

- Ridership estimates for the Silver Line
- Design and performance information for the dual mode vehicle (with particular emphasis on the emissions of the vehicle)
- Operations Plan for the Silver Line

The 2002 Annual Update describes additional progress on these issues. In addition, the 2002 Annual Update also reports on the three remaining issues identified in the Secretary's August 1999 certificate:

- Revised station design for Boylston Station showing continuation of tunnel
- Tunnel portal and station design at New England Medical Center, including below grade connection to the Orange Line Station
- Details of federal funding for Silver Line Phase III and schedule of final design and construction

The MBTA is also providing additional information on several other issues related to implementation of the Silver Line, particularly:

- Establishment of the South Boston Waterfront Transit Advisory Committee
- A realignment of the Silver Line Phase III tunnel alignment between Chinatown Station and Boylston Station

The MBTA is interested in receiving comments on the Annual Update. ***Comments will be received until December 20, 2002.*** All comments should be addressed to:

Andrew D. Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Or

electronically at abrennan@mbta.com

If you have any questions about this Annual Update, please contact me at 617-222-3126 or at abrennan@mbta.com.

Sincerely,

Andrew D. Brennan
Director of Environmental Affairs

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1.0 Purpose and Background

1.1 Purpose

In April 2001, the Massachusetts Bay Transportation Authority (MBTA) circulated an informational update on the status of the Silver Line project. That first *Annual Update Pursuant to M.G.L. Section 61* was prepared at the direction of the Secretary of the Executive Office of Environmental Affairs (EOEA) in his combined August 9, 1999 certificate on the following two MBTA filings:

- A February 1998 Notice of Project Change (NPC) for the South Boston Piers Transitway Project (EOEA No. 6826); and
- A May 1999 NPC for the Silver Line, which incorporates the Transitway and Washington Street Corridor Transit Service (EOEA No. 11707).

Specifically, the Secretary's certificate required the MBTA to revise and expand the Section 61 Finding for the Transitway, issued in April 1995, to cover the impacts and mitigation commitments for the full Silver Line project. In addition, the Secretary directed that informational updates to this finding be prepared and circulated for public comment annually. Seven issues to be addressed in the revised Section 61 Finding and annual informational updates were also identified by the Secretary. A copy of the Secretary's August 1999 certificate is contained in Appendix A.

The first informational update in April 2001 addressed four of the seven issues identified in the Secretary's August 1999 certificate:

1. Ridership estimates for the full Silver Line, as well as for each individual first phase component;
2. Manufacturer's design and performance standard for the dual mode vehicle to be used in the Transitway, and for the clean fuel vehicle to be used on Washington Street;
3. Discussion of the consistency of the vehicle types and performances with any applicable EPA [U.S. Environmental Protection Agency] policy and guidelines; and
4. Operations plan for the Transitway, including full details of coordination with AITC [Airport Intermodal Transit Connector] service.

This second informational update describes additional progress made on these four issues since publication of the first update in April 2001. It also reports on the three remaining issues identified in the Secretary's August 1999 certificate:

1. Revised station design for Boylston Station, showing continuation of tunnel;

2. Final tunnel portal and station design at New England Medical Center, including below-grade connection to Orange Line station, if feasible; and

3. Details of federal funding submission for Section C [Silver Line Phase III] tunnel, and schedule of final design and construction to meet 2008 completion date.

In addition to describing progress on all issues identified in the Secretary's certificate, this year's informational update reports on several other items related to implementation of the Silver Line. These include:

- Establishment of the South Boston Waterfront Transit Advisory Committee, charged with the responsibility of providing input to the MBTA on Silver Line operating plans;

- The need for a revised opening year operating plan for Silver Line Phase II service in the Waterfront area; and

- A change in the Silver Line Phase III tunnel alignment between South Station and Boylston Station, with a continuation to New England Medical Center to provide a future operational connection with Washington Street service.

This informational update also contains a Notice of Project Change related to the use of the dredged contaminated sediment from the Transitway Immersed Tube Tunnel in the Fort Port Channel. Finally, the update provides responses to comments received from reviewers of the following three documents; the latter two MBTA documents are described in more detail in Section 1.2:

- *South Boston Piers Area Transitway Peer Review Final Report*, February 2001.

- *Annual Update Pursuant to Massachusetts General Laws, Chapter 30, Section 61, Impact on the Natural Environment*, South Boston Piers Transitway (EOEA No. 6826) and Washington Street/Silver Line Transit Service and Roadway Improvements (EOEA No. 11707), MBTA, April 2001.

- *Environmental Assessment/Notice of Project Change, Silver Line Maintenance Facility on Southampton Street*, MBTA, April 2001.

1.2 History of Environmental Review Process

The state and federal environmental review process for the South Boston Piers/Fort Point Channel Transitway Project began in 1987. Highlights of that process are as follows:

- **Feasibility Study.** In the summer of 1987, the MBTA initiated a feasibility study to provide a preliminary evaluation of public transit alternatives to serve new development

in the South Boston Piers area. From approximately 250 combinations of technologies, destinations, and vertical alignments, six alternatives were selected for detailed analysis. These alternatives included conventional surface bus, two elevated and one underground people mover alignments, elevated guided bus, and a relocated Red Line. The feasibility study concluded that substantial public transportation improvements would be needed to support proposed development in the South Boston Piers area. The study recommended that a formal environmental impact analysis be initiated to enable a comprehensive evaluation of viable alternatives.[1].

- **Environmental Notification Form (ENF).** An ENF for public transit service alternatives serving the South Boston Piers area was prepared by the MBTA and submitted for EOEA review in November 1987. The Secretary's December 28, 1987 certificate on that ENF determined that an environmental impact report would be required.

- **Draft Environmental Impact Report (DEIR).**[2] A DEIR was initiated in the fall of 1987 pursuant to the requirements of the Massachusetts Environmental Policy Act (MEPA). Five alternatives – including some that were developed in the feasibility study – were analyzed in the DEIR: No Action, Bus/Transportation System Management (TSM), At-Grade Light Rail, Elevated People Mover, Fort Point Channel Underground Transitway, and Red Line Loop. The DEIR was circulated in the fall of 1989 to Massachusetts government agencies, interested organizations, and citizens. Based on analysis conducted for the DEIR, the Underground Transitway using either trackless trolleys or dual mode buses was designated as the locally preferred alternative.

- **Draft Environmental Impact Statement/Supplemental Draft Environmental Impact Report (DEIS/SDEIR).**[3] In August 1990, the Federal Transit Administration (FTA) approved the MBTA's application to advance the South Boston Piers/Fort Point Channel Transit Project into the federal alternatives analysis/environmental impact statement (AA/DEIS) process in accordance with the National Environmental Policy Act (NEPA). Based on the analysis and results of the DEIR, only a subset of alternatives was required by FTA for analysis as part of the federal process. Given the two years that had lapsed since publication of the DEIR, the MBTA and MEPA Unit agreed that the DEIS would also serve as a supplement to the earlier DEIR. The alternatives analyzed in the DEIS/SDEIR included a No Action Alternative, a Bus/TSM Alternative, and three termini options for the Underground Transitway Alternative advanced as part of the DEIR process. These termini options were a Full Build

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[1] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Transit Feasibility Study*. Prepared by URS Corporation. June 1987.

[2] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Alternatives Draft Environmental Impact Report*. EOEA No. 6826. Prepared by URS Consultants, Inc. September 1989.

[3] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Transit Project Draft Environmental Impact Statement/Supplemental Draft Environmental Impact Report*. EOEA No. 6826. Prepared by URS Consultants, Inc. November 1992.

alignment extending from the existing Boylston Green Line Station to a new station at the World Trade Center in the Piers area; Minimum Operable Segment (MOS)-1, which extended from South Station to the Fan Pier; and MOS-2 extending from South Station to the World Trade Center. The FTA approved the DEIS/SDEIR in November 1992. On January 13, 1993, the Massachusetts Secretary of Environmental Affairs issued a Certificate finding the DEIS/SDEIR adequate and in compliance with the MEPA.

- **Locally Preferred Alternative Report.**[4] Based on the results of the technical analysis presented in the DEIS/SDEIR and in concert with the ongoing public participation process established for the project, a report was prepared designating the Fort Point Channel Underground Transitway Full Build Transitway (also referred to as the South Boston Piers Full Build Transitway) as the locally preferred alternative. Of all the alternatives analyzed, the Full Build Alternative was deemed the best solution to transportation problems in the Piers area. This was measured in terms of improved transit service to the Piers area; support of future economic expansion in the Piers area; mitigation of potential traffic problems in the Piers area generated by projected development; minimized degradation of the natural environment; preservation of existing neighborhood and community cohesion; and provision of efficient and productive transit service. FTA approval of this report and of the initiation of preliminary engineering for the locally preferred alternative was received on June 2, 1993.

- **Transitway Elements in C11A1: Environmental Assessment/Notice of Project Change.**[5] While work was proceeding on a Final Environmental Impact Statement/Final Environmental Impact Report, the opportunity arose to jointly construct portions of the Transitway Project with the northbound Central Artery. Because the schedule for a joint Central Artery/Transitway construction package required plans, specifications, and estimates (PS&E) for the Transitway elements by July 31, 1993, an Environmental Assessment (EA)/NPC was prepared. A Finding of No Significant Impact (FONSI) was received from the FTA on June 17, 1993, and a Phase I Waiver was received from the Massachusetts Executive Office of Environmental Affairs on July 15, 1993.

- **Final Environmental Impact Statement/Final Environmental Impact Report (FEIS/FEIR).**[6] The FEIS/FEIR for the Transitway Project was formally issued on December 22, 1993 when its availability was published in the *Environmental Monitor*

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[4] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Transit Project Locally Preferred Alternative Report.* Prepared by URS Consultants, Inc. February 1993.

[5] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Transit Project, Transitway Elements in C11A1: Environmental Assessment/Notice of Project Change.* Prepared by URS Consultants, Inc. April 1993.

[6] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Transit Project Final Environmental Impact Statement/Final Environmental Impact Report.* EOEA No. 6826. Prepared by URS Consultants, Inc. December 1993.

and *Federal Register*. The FEIS/FEIR responded to all comments received on the DEIS/SDEIR, and selected trackless trolleys as the vehicle technology for Transitway operation. A public meeting on the FEIS/FEIR was held on January 12, 1994. The Secretary of the Massachusetts Executive Office of Environmental Affairs issued a Certificate on February 16, 1994 finding that the FEIS/FEIR adequately and properly complied with the MEPA and its implementing regulations. On May 12, 1994, FTA issued its Record of Decision (ROD) for the Full Build Transitway Project, which completed the federal environmental review process.

- **Draft Section 61 Finding.**[7] As directed by the Secretary of Environmental Affairs in the FEIS/FEIR Certificate dated February 16, 1994, a Draft Section 61 Finding was prepared and circulated for public review, demonstrating that the MBTA had taken all feasible measures to avoid or minimize potential adverse impacts of the project. The Draft Section 61 Finding also addressed two issues that were left unresolved at the conclusion of the FEIS/FEIR: 1) whether to take or underpin the New England Seafood Center, and 2) the location of the Transitway maintenance facility. Comments received from reviewers were transmitted from the Secretary of Environmental Affairs to the MBTA in a letter dated November 30, 1994.

- **Final Section 61 Finding.**[8] A Final Section 61 Finding was prepared, responding to all comments and recommendations received from the Secretary of Environmental Affairs. The filing of this finding on April 18, 1995 completed the state environmental review process for the Transitway Project.

- **Environmental Assessment/Notice of Project Change for Transitway Initial Vehicle Technology and Connector Road.**[9] In February 1998, the MBTA issued an Environmental Assessment (EA)/NPC describing the environmental impacts and mitigation for a change in the vehicle technology to be operated as part of the first phase of the Transitway – proposed to be a dual mode vehicle, rather than the low-floor trackless trolley originally selected as part of the FEIS/FEIR process – and for construction of a "Connector Road" from the Transitway portal at D Street to the Massport Haul Road.

- **Washington Street/Silver Line Transit Service Environmental Notification Form.** The MBTA issued an ENF on July 15, 1998 describing two phases of the Silver Line. Phase I would provide a surface transit connection along Washington Street between Dudley Square and Downtown Crossing. In Phase II, a tunnel and portal would be

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[7] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Transit Project Draft Section 61 Finding*. EOEA No. 6826. Prepared by URS Consultants, Inc. October 1994.

[8] Massachusetts Bay Transportation Authority. *South Boston Piers/Fort Point Channel Transit Project Final Section 61 Finding*. EOEA No. 6826. Prepared by URS Consultants, Inc. April 1995.

[9] Massachusetts Bay Transportation Authority. *South Boston Piers Transitway Project. Environmental Assessment/Notice of Project Change for Transitway Initial Vehicle Technology and Connector Road.* EOEA No. 6826. Prepared by URS Consultants, Inc. February 1998.

constructed to connect the Washington Street service to Phase II of the South Boston Piers Transitway. On August 21, 1998, the Secretary of EOEA issued a certificate that allowed the MBTA to prepare an NPC to address issues raised in both the certificate and ENF comments letters.

- **Notice of Project Change, Washington Street/Silver Line Transit Service and Roadway Improvements; Response to Comments (NPC), South Boston Piers Transitway.**[10] In response to the August 1998 EOEA certificate, the MBTA issued a combined NPC document in May 1999, with the first part addressing the combined Silver Line, and the second part responding to comments on the February 1998 Transitway EA/NPC. On August 9, 1999, the Secretary of EOEA issued a certificate requiring the MBTA to prepare annual informational updates on the Silver Line.

- **Environmental Assessment/Notice of Project Change for the Silver Line Maintenance Facility on Southampton Street.**[11] In April 2001, the MBTA issued an EA/NPC describing the environmental impacts of siting the maintenance facility at a new location on Southampton Street. The FEIS/FEIR had described the impacts of a facility in the South Boston Waterfront neighborhood. A certificate on the EA/NPC was issued on May 25, 2001 in which the Secretary determined that no further environmental review of the facility at the Southampton Street location was required.

- **Annual Update Pursuant to Massachusetts General Laws, Chapter 30, Section 61, Impact on the Natural Environment.**[12] As described above in Section 1.1, the Secretary's August 9, 1999 certificate required that the MBTA prepare annual informational updates to describe progress on the combined Silver Line project. The first Annual Update was filed in April 2001 and described progress made to date on the development of new ridership estimates for the full Silver Line; manufacturer's design and performance standard of the dual mode vehicle to be used in the Silver Line/South Boston Transitway as well as the compressed natural gas (CNG) vehicles to be used on the Washington Street section of the Silver Line; a discussion of the consistency of the vehicle types and performances with any applicable EPA policies and guidelines; and operations plans of the Silver Line/South Boston Transitway, including the coordination with AITC service to Logan Airport.

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[10] Massachusetts Bay Transportation Authority. *Notice of Project Change, Washington Street/Silver Line Transit Service and Roadway Improvements and Response to Comments (NPC), South Boston Piers Transitway*, EOEA Nos. 11707 and 6826. Prepared by URS Corporation, May 1999.

[11] Massachusetts Bay Transportation Authority, *Environmental Assessment/Notice of Project Change for the Silver Line Maintenance Facility on Southampton Street.* EOEA Nos. 6826 and 11707. Prepared by URS Corporation, April 2001.

[12] Massachusetts Bay Transportation Authority, *Annual Update Pursuant to Massachusetts General Laws, Chapter 30, Section 61, Impact on the Natural Environment.* EOEA Nos. 6826 and 11707. Prepared by URS Corporation, February 2001, Revised April 2001.

1.3 Future Filings

The MBTA continues to conduct additional analyses and studies that will result in future filings with EOEA and FTA. These studies are needed to fully analyze, integrate, and implement the Silver Line project, and include the following:

- **Silver Line Phase III Alignment EA**. An EA will be prepared to describe the impacts of alternative alignments for two sections of the Silver Line: 1) the tunnel alignment between South Station and Boylston Station; and 2) the tunnel connection between the Washington Street project to Boylston Station. Conceptual design for these two sections, which comprise Phase III of the Silver Line, has been completed on an alternative tunnel alignment that follows Essex Street to Chinatown and Boylston Stations, and continues in tunnel to New England Medical Center Station; in the FEIS/FEIR for the Transitway project, the alignment followed Avenue de Lafayette and Avery/Tremont Streets to a terminus at Boylston Station. This realignment and extension of the Phase III tunnel is described in more detail in Section 5.0; the environmental consequences of this change, which are not expected to be significant and in fact will be lesser in some key cases than those analyzed previously in the FEIS/FEIR, are also summarized. The EA also will incorporate a financial analysis of these remaining sections of the project.

- **Future Informational Updates Pursuant to Section 61.** As work proceeds on these studies and resolution of issues identified in the Secretary's August 1999 certificate, additional annual informational updates will be issued.

- **Revised Draft and Final Section 61 Findings.** Upon completion of all analytical and engineering work for the Silver Line, draft and final Section 61 Findings will be prepared, summarizing the impacts and mitigation of the project.

1.4 Public Process

As reported in the previous Annual Update, the MBTA has established a public outreach process for the Silver Line, to foster an interactive, community-based, public participation process through which the MBTA can receive information from affected parties and provide continuing updates on the Silver Line as the project advances. The first step in the Silver Line public outreach process was to convene the South Boston Waterfront Transit Advisory Committee (SBWTAC), which provides a forum for two-way communication between the MBTA and Waterfront area stakeholders. These stakeholders represent a broad cross-section of interests, including elected officials; transportation and other public agencies; businesses and developers; and environmental, public health, neighborhood, and community organizations. A list of organizations who have been invited to participate in the SBWTAC is provided in Table 1.1.

The committee has two primary goals: 1) to advise the MBTA on development of the initial service plan, which will coordinate Silver Line Phase II service with existing bus routes, privately operated shuttle services, and water transportation to the South Boston Waterfront; and 2) to address recommendations made in the *South Boston Piers Area Transitway Peer Review Panel Final Report* regarding operating plans, vehicle emission controls, and emissions monitoring for the area. After these goals have been met, the committee will be expanded to address issues related to completion of the full build Silver Line, including the connection between Phase I (Washington Street) and Phase II (service between South Station and the Waterfront) and selection of the vehicle for future Silver Line operations.

The committee was launched in December 2001 and plans to meet monthly until the final service plan for the Waterfront has been finalized. Over the next year the committee will focus on development of an interim plan to provide service between South Station and the Waterfront area when Phase II begins operation in December 2003 (see Section 1.5). The committee will then assist in the development of the final Phase II service plan, which will be implemented as soon as the dual mode vehicles become available. The committee has also identified a number of topics for discussion in the context of developing the service plans, such as signal priority for buses, integration of transit services with pedestrian and bicycle travel, and Silver Line fare policy. Both the interim and the final service plans will be presented at public meetings in the Waterfront area and the South Boston neighborhood before they are finalized. A copy of the committee agenda is shown in Table 1.2.

Other aspects of the MBTA's Silver Line public outreach process involve the continued dissemination of information on the progress of the project, through the submittal of such documents as these annual updates and a future EA (see Section 1.3 above). Public comment periods will be held for each document, some through the federal NEPA process and others through comment periods held by the MBTA (such as on these annual updates). The MBTA will prepare and issue responses to comments for each document circulated for public review.

The MBTA has also launched a Silver Line web site, which provides continuing updates on the project, vehicles, schedule, etc. The web site can be viewed at www.allaboutsilverline.com.

Through this public outreach process, the MBTA will build a strong, broad-based coalition in support of the Silver Line. As discussed in more detail in Section 6.0, this support is crucial if the MBTA is to receive the large amount of federal funds needed to make this project a reality.

Table 1.1 Participants in the South Boston Waterfront Transit Advisory Committee

Type of Participant	Participant Organization
Elected Officials	• Boston City Council • U.S. House of Representatives (9th District of Massachusetts) • Massachusetts Senate
Transportation and Public Agencies	• Boston Environment Department • Boston Environmental Services • Boston Redevelopment Authority • Boston Transportation Authority • Central Artery/Tunnel Project • Central Transportation Planning Staff • Federal Transit Administration • Massachusetts Convention Center Authority • Massachusetts Executive Office of Environmental Affairs • Massachusetts Port Authority • MBTA Advisory Board
Businesses, Organizations/Interests, Occupants, and Developers of the South Boston Waterfront	• Artery Business Committee • Boston Marine Industrial Park • Brownfields Recovery Corporation • Community Design Partnership • Fort Point Associates, Inc. • John Joseph Moakley U.S. Courthouse • Spaulding & Slye Colliers International • The Drew Company • The McCourt Company
Environmental, Public Health, Neighborhood, and Community Organizations	• Adaptive Environments • Alternatives for Community and Environment • Artery Business Committee Transportation Management Association • The Boston Harbor Association • Condon Community Center • Conservation Law Foundation • Logan Transportation Management Association • Seaport Transportation Management Association • South Boston Design Advisory Committee • South Boston Public Health Initiative • South Boston Residents Group

Table 1.2 South Boston Waterfront Transit Advisory Committee

Draft Meeting Schedule – All meetings will include a construction update.

December 17, 2001	MBTA	• Present committee background information, membership and goals
January 28, 2002	BRA	• Present data on existing/planned levels of development
March 5, 2002	TMAs	• Present information on existing commuter patterns, based on data from member employee surveys, etc., and review status of existing private transit services to the Waterfront area
	MBTA	• Review all existing public transit services to the Waterfront area
April 2, 2002	SBWTAC	• Committee Tour of the Transitway Tunnel
May 7, 2002	MBTA	• Discuss Committee Approach and Schedule
		• Establish subcommittee to assist in planning public meetings that will be held in South Boston
		• Update committee on dual-mode vehicle procurement status and discuss vehicle emissions and monitoring issues
June 4, 2002	TMAs	• Update committee on the progress of the South Boston Shuttle Study to elicit discussion and feedback on possible shuttle service alternatives
July 2, 2002	SBWTAC	• Optional – Tour of MBTA Bus and Subway Operations Control Center
August 6, 2002	SBWTAC	• Optional – Tour of Washington Street Silver Line Service
September 3, 2002	MBTA	• Present and discuss "Interim" Transitway service plan, including stops at South Station, the Courthouse, WTC, and Connector Road (using trackless trolleys until dual-mode vehicles are available). Allow committee members two weeks to forward additional comments on the proposed "Interim" Transitway service plan to the MBTA for consideration before public meetings.
		• Update committee on dual-mode vehicle procurement status
		• Discuss draft equipment maintenance and emissions control/ monitoring plans
October and November	MBTA and SBWTAC	• Hold two community meetings to present "Interim" Transitway service plan (with stops at South Station, the Courthouse, WTC and Connector Road (using trackless trolleys); to discuss equipment emissions control/monitoring issues; and to elicit input/discussion regarding the "Final" Transitway service plan (with surface routes, using dual-mode vehicles):
		• Meeting for Waterfront area transit users (daytime)
		• Meeting for South Boston residential area transit users (in the evening)
December 3, 2002	MBTA	• Present and discuss "Interim" Transitway service plan (with stops at South Station, the Courthouse, WTC and Connector Road, using trackless trolleys), updated with input from public meetings
	TMAs	• Present final recommendations of South Boston Shuttle Study
	MBTA	• Present and discuss draft "Final" Transitway service plan including BMIP, BCEC and AITC surface routes (using dual-mode vehicles); identify possible needed adjustments to existing bus routes; and discuss potential need for additional complementary services. Also discuss possible future Silver Line surface routes to the South Boston neighborhoods and identify service tradeoffs

Table 1.2 South Boston Waterfront Transit Advisory Committee (continued)
Draft Meeting Schedule – All meetings will include a construction update.

January 7, 2003	SBWTAC	• Invite SBWTAC members to present their ideas for the "Final" Transitway service plan (with surface routes, using dual-mode vehicles) and allow them two weeks to forward additional comments
February 4, 2003	MBTA	• Discuss fares, station operations, station signage, etc.
	(TBD)	• Discuss signal prioritization and integration of bike and pedestrian access with transit
March 4, 2003	MBTA	• Present and discuss updated "Final" Transitway service plan (with surface routes, using dual-mode vehicles), based on SBWTAC member comments
		• Update committee on dual-mode vehicle procurement status and discuss equipment maintenance and emissions control/monitoring plans
April and May 2003	MBTA and SBWTAC	• Hold two community meetings to present the "Final" Transitway service plan (with surface routes, using dual-mode vehicles); and to discuss equipment maintenance and emissions control/monitoring plans:
		• Meeting for Waterfront area transit users (daytime)
		• Meeting for South Boston residential area transit users (in the evening)
June 3, 2003	MBTA	• Committee tour of the Southampton St. Maintenance Facility
July 1, 2003		• *TBD (optional)*
August 5, 2003		• *TBD (optional)*
September 2, 2003	MBTA	• Review equipment maintenance and emissions control/monitoring
		• Present and discuss the "Final" Transitway service plan (with surface routes, using dual-mode vehicles), updated with input from public meetings
October 7, 2003	SBWTAC	• Discuss transition to committee that will address full-build Silver Line issues
December 2003		• Implement "Interim" Transitway service plan, including stops at South Station, the Courthouse, WTC and Connector Road (using trackless trolleys)
2004		• Implement "Final" Transitway service plan with surface routes (using dual-mode vehicles)
2004		• Transition to committee that will address full-build Silver Line issues

1.5 Draft Interim Service Plan

Revenue service for Phase II of the Silver Line will begin in December 2003. However, because the manufacturer will not deliver the 60-foot dual mode articulated vehicles by that time, the MBTA will initiate Phase II service using low-floor 40-foot electric trolley buses (ETB). The MBTA currently has 13 ETBs on order, and based on the manufacturer's delivery schedule, the MBTA expects these vehicles to be available for initiation of

Phase II service. The ETBs will continue to provide Interim Service until the dual mode vehicles are deployed.

The MBTA chose the ETBs for Silver Line Phase II Interim Service because they can operate in the Transitway tunnel using the overhead catenary and because their low-floor design will facilitate level boarding, which will reduce dwell times at stations and meet the needs of passengers with disabilities. The MBTA's current diesel fleet does not have low-floors and cannot be operated in the tunnel, due to ventilation issues. Although the MBTA's CNG vehicles are low-floor, they also cannot operate in the tunnel.

The ETBs will provide Interim Service from South Station to the Connector Road, with intermediate stops at the Courthouse and the World Trade Center Stations. Because the ETBs operate exclusively using the overhead catenary, they will not provide service beyond the Connector Road. Thus, Phase II surface routes to BMIP, BCEC, and Logan Airport will not begin until the dual mode vehicles are available for service. Until then, MBTA bus Routes 3 and 6 will continue to operate between South Station and BMIP.

The MBTA currently is developing the ETB Interim Service Plan and will present it to the South Boston Waterfront Transit Advisory Committee for review and advice in September 2002. The Interim Service Plan also will be presented at two public meetings, which are planned for the Waterfront and the South Boston residential area in October and November 2002. At these meetings, the MBTA also will solicit input on the service plans for the Transitway surface routes and will present the preliminary emissions control and monitoring plans.

The Silver Line ridership estimates presented in Section 2.0 are based on 2005 development projections and the use of the 60-foot dual mode vehicles. Because several major parcels in the Waterfront have not yet received environmental clearance to initiate development, ridership demand will be lower during the time that the ETBs are providing Interim Service. Thus, it is anticipated that the Interim Service Plan will meet the existing demand, even though the capacity of the ETBs is lower than that of the dual mode vehicles.

1.6 Organization of Document

Section 2.0 of this informational update reports on additional Silver Line ridership analysis since the April 2001 update was published. The section describes adjustments to 2005 development assumptions for the Waterfront area, and reports new ridership projections based on those changed assumptions. In addition, an analysis of the capacity of the Silver Line to meet a more aggressive development scenario is described. Finally, future Silver Line ridership analysis efforts are summarized. Section 3.0 describes changes to the engine specification for the dual mode vehicles to be procured for Silver Line operation. Section 4.0 summarizes the anticipated emissions impacts of the revised engine specification, and presents the results of regional air quality analysis. Section 5.0 provides a detailed description of additional conceptual design activities that have been completed

on the Silver Line Phase III and summarizes the anticipated environmental consequences of a change and extension of the Phase III alignment. Section 6.0 summarizes the MBTA's assumptions about and process for obtaining federal funding for Phase III, and provides an update on schedule. Finally, in Section 7.0, responses are provided to comments received on the Transitway Vehicle Peer Review Final Report, the Silver Line Maintenance Facility EA/NPC, and the April 2001 Annual Update.

2.0 Revised Silver Line Ridership Estimates

2.1 Introduction

The April 2001 Annual Update presented anticipated ridership for the Silver Line, both in 2005 when the initial implementation phase between South Station and the Waterfront area – Silver Line Phase II – would be in operation and in 2025 when the full Silver Line will be constructed, providing service between Dudley Square, downtown Boston, the Waterfront area, and Logan Airport.[1] The 2025 ridership forecasts reflected Waterfront area land uses and build-out assumptions developed by the Boston Redevelopment Authority (BRA) in 2001, while the 2005 ridership was based on the land use assumptions developed in 1996 by the Central Transportation Planning Staff (CTPS) in conjunction with the Massachusetts Port Authority and the City of Boston Planning Department.

This section describes changes in the BRA's development assumptions for 2005 and the revised 2005 Silver Line ridership estimates that are based on those changes. Ridership forecasts for 2025 have remained the same, as the BRA's 2025 development assumptions have not changed. This section also presents a capacity analysis that has been performed to assess the adequacy of the proposed Silver Line Phase II operating plan and vehicle fleet size, if new development in the Waterfront area occurs more quickly than anticipated. Finally, the process that will be used in the future to project Silver Line ridership is described.

[1] The terminology for referring to each operating phase of the Silver Line has been changed since publication of the Annual Update in April 2001. Specifically, that document referred to Phases 1 and 2 of the Transitway. Phase 1 of the Transitway is now referred to as Phase II of the Silver Line, consisting of a tunnel between South Station and the World Trade Center, with surface routes in the Waterfront area. Phase 2 of the Transitway is now referred to as Phase III of the Silver Line, consisting of a tunnel extending between South Station and New England Medical Center. Phase I of the Silver Line consists of surface Washington Street service between Dudley Square and downtown Boston. The numbering of Silver Line phases reflects the order in which they will be implemented. The full build Silver Line will be completed with the Phase III tunnel, and will allow a one-seat ride from Dudley Square to the airport.

2.2 2005 Development Assumptions

Over the past five years, the future development plans for the emerging Waterfront area have undergone several reviews and revisions. Most recently, the BRA has reviewed development that is likely to be in place by the year 2005 and has prepared an updated land use plan for 2005. CTPS revised the estimated number of trips destined for the Waterfront area by comparing its 2005 land use assumptions (which were developed in 1996) with the BRA's updated 2005 land use plan. Table 2.1 shows the projected trips by purpose – home, work, or other (such as visitors) – for each of four major trip generators in the Waterfront area. As can be seen in this table, the BRA's revised land use plan for 2005 results in approximately 23,000 more trips destined to the Waterfront area than were projected for 2005 in the plan developed by CTPS in 1996.

Table 2.1 Comparison of 2005 Trip Generation Results
CPTS Assumptions Versus BRA's 2005 Land Use

Based on CTPS Assumptions Developed in 1996
Total Daily Trip Destinations

	Home	Work	Other	Total
Courthouse	170	4,420	2,770	7,360
Trade Center		9,600	2,800	12,400
EDIC	70	6,110	1,490	7,670
Convention Center	10	3,520	675	4,205
Grand Total				**31,635**

Based on BRA's Land Use Assumptions for 2005
Total Daily Trip Destinations

	Home	Work	Other	Total
Courthouse	2,715	10,900	5,335	18,950
Trade Center	1,245	16,740	2,340	20,325
EDIC	70	4,385	1,490	5,945
Convention Center	1,495	7,510	505	9,510
Grand Total				**54,730**

2.3 Ridership Summary

As described above, the ridership forecasts developed for the year 2025 and presented in the previous Annual Update have not changed. However, ridership forecasts for 2005 have been revised, based on recent, updated BRA projections for the level of new development expected to be in place in the Waterfront area by that time. Although the development and ridership projections have been updated, it was not necessary to change the proposed Phase II Silver Line operating plan for 2005.

Total Phase II Silver Line ridership using BRA's revised land use assumptions is estimated to be 33,015 riders per day in 2005.[2] This projection represents 5,265 more Silver Line trips than estimated in the previous Annual Update, and reflects the higher Waterfront development levels now anticipated for 2005.

Table 2.2 summarizes the 2005 ridership estimate presented in the April 2001 Annual Update, the ridership estimates presented in the 1993 FEIS/FEIR, and the revised 2005 ridership estimates using the BRA's new land use assumptions for 2005. The table also shows anticipated ridership on Phase I of the Silver Line (Washington Street Service).

The peak load and available capacity on each Phase II Silver Line branch are reported in Table 2.3. Results indicate that the Silver Line should have sufficient capacity to accommodate projected demand in 2005. The maximum volume-to-capacity (V/C) ratio at the peak load point is projected to be about 0.74. Based on this V/C ratio, a fleet of roughly 24 vehicles would be sufficient to maintain a 3-minute headway on the Silver Line services to the Waterfront area and a 10-minute headway on the route to Logan Airport.

2.4 Aggressive Growth Scenario Capacity Analysis

As described above, more than sufficient capacity exists on the Phase II Silver Line with its fleet of 32 dual mode vehicles (including spares) to meet ridership demand requirements in 2005. This finding assumes the higher trip generation resulting from increased development projected by BRA for the Waterfront area by 2005. To further test the capacity of the Phase II Silver Line, "what if" analysis was conducted for an even more aggressive growth scenario, which assumes that the number of vehicles available to provide Phase II service would remain unchanged, but levels of development would increase. For this analysis, the development projected by the BRA in the Waterfront by 2010 is assumed to occur five years earlier, in 2005.

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[2] This estimate excludes ridership on Route 7, which was anticipated to operate via the Silver Line tunnel at the time the Transitway FEIS/FEIR was published. If Route 7 ridership is included in the estimate, daily ridership on MBTA services operated to the Waterfront area is projected to be 42,015.

Table 2.2 Update of the Silver Line Ridership Results for 2005
Using BRA's Land Use Assumptions

Network Assumptions

Silver Line Service Headways

South Station – BMIP 3.0 minutes

South Station – BCEC 3.0 minutes

South Station – Logan 10.0 minutes

Washington Street service runs on surface:

Dudley to Downtown Crossing at 4-minute headway, replaces Route 49

All shuttle buses eliminated

Daily Ridership for the Year 2005

Transit Service	Route Description	CTPS Analysis Done in August, 2001 Using CTPS Land Use Assumptions	Original FEIS Numbers Year 2005	Current CTPS Analysis Using BRA's 2005 Land Use Assumptions
South Station Service	South Station-BMIP	15,600	17,700	18,565
South Station Service	South Station-Summer Street	n/a	13,100	n/a
South Station Service	South Station-BCEC	8,950	n/a	10,650
AITC	South Station-Logan	3,200	n/a	3,800
Boylston Service	Boylston-BMIP	n/a	n/a	n/a
Boylston Service	Boylston-WTC	n/a	n/a	n/a
Boylston Service	Boylston-Summer Street	n/a	n/a	n/a
Silver Line Service	Dudley-BMIP	n/a	n/a	n/a
Silver Line Service	Dudley-BCEC	n/a	n/a	n/a
Silver Line Service (AITC)	Dudley-Logan	n/a	n/a	n/a
Route 7 (runs in the tunnel in the original FEIS)		7,580	3,700	9,000
Total Ridership (including Route 7 riders)		**35,330**	**34,500**	**42,015**
Total Ridership (excluding Route 7 riders)		**27,750**	**30,800**	**33,015**
Washington Street Service	Route 49	n/a	11,000	n/a
	Dudley Square-CBD (Silver Line)	12,130	n/a	12,150
	Dudley Square-BMIP/ BCEC/Logan	n/a	n/a	n/a
	Dudley-Boylston segment of the Silver Line*	9,200	n/a	9,200

* Total for this segment is a subset of the daily riders traveling between Dudley Square and the CBD.

Table 2.3 Vehicle Requirements and V/C Ratios for the Year 2025

South Station to BMIP Service		
Daily Peak Load	**From South Station going East**	8,900
	Runtime/In	10.5
	Runtime/Out	9.0
	Layover time	4.0
	Cycle time	27.5
	Peak hour Headway	3
	Number of vehicles passing through the tunnel during peak hour	20
	Available capacity in peak hour	**1,940**
	Number of vehicles used	**10**
	Peak load in a.m. peak hour	**1,869**
South Station to BCEC Service		
Daily Peak Load	**From South Station going East**	5,100
	Runtime/In	7.0
	Runtime/Out	10.0
	Layover time	3.00
	Cycle time	23.0
	Peak hour Headway	3.0
	Number of vehicles passing through the tunnel during peak hour	20
	Available capacity in peak hour	**1,940**
	Number of vehicles used	**8**
	Peak load in a.m. peak hour	**1,071**

Table 2.3 Vehicle Requirements and V/C Ratios for the Year 2025 (continued)

South Station to Logan Service (AITC)		
Daily Peak Load	**From South Station going East**	1,860
	Runtime/In	27
	Runtime/Out	18
	Layover time	9
	Cycle time	63
South Station to Logan Service	Peak hour Headway	10
	Number of vehicles passing through tunnel during peak hour	6
	Available capacity in peak hour	**582**
	Number of vehicles used	**6**
	Peak load in a.m. peak hour	**391**

Summary

Service	Total Available Capacity	Total Peak Load in A.M. Peak Hour
South Station to BMIP	1,940	1,869
South Station to BCEC	1,940	1,071
South Station to Logan	582	391
	4,462	**3,331**
Overall V/C ratio	**0.74**	
Total Vehicles Needed to Maintain Assumed Headways	**24 vehicles**	

Land use and associated trip generation assumptions for 2010 were estimated by interpolating the trip generation results of 2005 and 2025. Using those trip generation results, ridership was projected for 2010. As shown in Table 2.4, there would be an estimated increase in Silver Line ridership of 9.4 percent between 2005 and 2010.

Table 2.4 Update of the Silver Line Ridership Results for 2010

Obtained through interpolation of BRA's Land Use for 2005 and 2025

Network Assumptions

Silver Line Service Headways

South Station – BMIP 3.0 minutes

South Station – BCEC 3.0 minutes

South Station – Logan 10.0 minutes

Washington Street service runs on surface:

Dudley to Downtown Crossing at 4-minute headway, replaces Route 49

All shuttle buses eliminated

Daily Ridership for the Year 2010

Transit Service	Route Description	2005 Ridership: CTPS Analysis Using BRA's 2005 Land Use Assumptions	2010 Ridership: CTPS Analysis Using Interpolation of BRA's Land Use for 2005 and 2025
South Station Service	South Station-BMIP	18,565	20,300
South Station Service	South Station-Summer Street	n/a	n/a
South Station Service	South Station-BCEC	10,650	11,650
AITC	South Station-Logan	3,800	4,160
Boylston Service	Boylston-BMIP	n/a	n/a
Boylston Service	Boylston-WTC	n/a	n/a
Boylston Service	Boylston-Summer Street	n/a	n/a
Silver Line Service	Dudley-BMIP	n/a	n/a
Silver Line Service	Dudley-BCEC	n/a	n/a
Silver Line Service (AITC)	Dudley-Logan	n/a	n/a
Route 7 (runs in the tunnel in the original FEIS)		9,000	9,850
Total Ridership (including Route 7 riders)		**42,015**	**45,960**
Total Ridership (excluding Route 7 riders)		**33,015**	**36,110**
Washington Street Service	Route 49	n/a	n/a
	Dudley Square-CBD (Silver Line)	12,150	13,270
	Dudley Square-BMIP/ BCEC/Logan	n/a	n/a
	Dudley-Boylston segment of the Silver Line*	9,200	10,075

* Total for this segment is a subset of the daily riders traveling between Dudley Square and the CBD.

Table 2.5 summarizes the peak load and available capacity on the Silver Line assuming 2010 development levels. As shown, the average V/C ratio on all branches of the Silver Line would be approaching 85 percent. However, the MBTA's planned Phase II vehicle fleet of 32 dual mode buses (24 in operation and six spares), operating at previously planned headways, could easily meet the ridership demand created by an aggressive growth scenario in the Waterfront area.

Table 2.5 Vehicle Requirements and V/C Ratios for the Year 2010

South Station to BMIP Service		
Daily Peak Load	**From South Station going East**	9,750
	Runtime/In	10.5
	Runtime/Out	9.0
	Layover time	4.0
	Cycle time	27.5
	Peak hour Headway	3
	Number of vehicles passing through the tunnel during peak hour	20
	Available capacity in peak hour	**1,940**
	Number of vehicles used	**10**
	Peak load in a.m. peak hour	**2,048**
South Station to BCEC Service		
Daily Peak Load	**From South Station going East**	5,700
	Runtime/In	7.0
	Runtime/Out	10.0
	Layover time	3.00
	Cycle time	23.0
	Peak hour Headway	3.0
	Number of vehicles passing through the tunnel during peak hour	20
	Available capacity in peak hour	**1,940**
	Number of vehicles used	**8**
	Peak load in a.m. peak hour	**1,197**

Table 2.5 Vehicle Requirements and V/C Ratios for the Year 2010 (continued)

South Station to Logan Service (AITC)		
Daily Peak Load	**From South Station going East**	2,100
	Runtime/In	27
	Runtime/Out	18
	Layover time	9
	Cycle time	63
South Station to Logan Service	Peak hour Headway	10
	Number of vehicles passing through tunnel during peak hour	6
	Available capacity in peak hour	**582**
	Number of vehicles used	**6**
	Peak load in a.m. peak hour	**441**

Summary

Service	Total Available Capacity	Total Peak Load in A.M. Peak Hour
South Station to BMIP	1,940	2,050
South Station to BCEC	1,940	1,200
South Station to Logan	582	450
	4,462	**3,700**
Overall V/C ratio	**0.83**	
Total Vehicles Needed to Maintain Assumed Headways	**24 vehicles**	

2.5 Future Ridership Estimation

Additional ridership estimation will be conducted as implementation of the Silver Line proceeds. Specifically, as described in Section 1.5, an interim service plan will be put in place for Phase II in 2003 using ETBs. As described previously, the operating characteristics of this interim plan will be developed with input from the South Boston Waterfront Transit Advisory Committee and the public. Ridership forecasts will be prepared for that interim operating plan as it is developed by the committee.

The committee will also provide input on longer-term service plans for the Silver Line. Ridership projections will be updated if necessary, based on the final Phase II service plan and/or any additional changes in the Waterfront area development plan that are identified by the BRA.

Finally, as will be discussed in Section 6.0, the MBTA has submitted a request to FTA which has been approved to initiate preliminary engineering on Phase III of the Silver Line; Phase III will connect Phases I and II through a tunnel extending between South Station and New England Medical Center. To date, ridership forecasts for the Silver Line project have been generated using the same regional model set that was originally used for the Transitway FEIR/FEIR; this approach ensured that the ridership forecasts for the project remained consistent and comparable. However, a more sophisticated regional model set will be used for future phases of Silver Line project development, and revised ridership will be estimated. This new model set will be used once preliminary engineering is initiated for Phase III of the Silver Line and will incorporate FTA's requirements for calculating travel time savings. Definition of these requirements has been delayed for over a year, but should be available by summer 2002 and must be met by projects that are advanced into preliminary engineering.

3.0 Vehicle and Environmental Control Technologies

3.1 Introduction

This section provides an update on the dual mode articulated vehicle to be operated in Phase II of the Silver Line. Specifically, since the previous Annual Update was filed in April 2001, there has been a change in the engine that will power the dual mode vehicle. There are no other changes to the vehicle as described in the previous Annual Update.

The new engine, its proposed emissions control plan, and consistency with the regulations and policies of the U.S. Environmental Protection Agency (EPA) are described below.

3.2 Engine

The MBTA, in conjunction with its contracted Silver Line vehicle manufacturer, NEOPLAN USA, has selected the Detroit Diesel Corporation (DDC) Series 60 diesel engine for integration with the dual mode vehicle's propulsion system (GenSet and electric motor drive). This change was due to the fact that DaimlerChrysler, the originally selected engine manufacturer, withdrew its offer to provide the LA OM-502 engine for the U.S. market. This decision was based in part on DaimlerChrylser's recent acquisition and corporate integration of DDC, whose product line meets the MBTA's requirements. A major diesel engine manufacturer in North America, the Michigan-based DDC is also the largest supplier of heavy-duty diesel engines to the U.S. transit bus market.

The selected DDC Series 60 engine is a 500-horse power (hp), 14-liter, six-cylinder engine incorporating exhaust gas recirculation (EGR) technology for heightened oxides of nitrogen (NOx) control.[1] The engine will be equipped with an enhanced DDEC IV electronic control module (ECM) that is calibrated and configured to integrate the EGR system, its operating components, and variable control features.

[1] Section 4.0 presents a revised analysis of the air quality impacts, including NOx reductions, resulting from this new engine.

Essentially, EGR is a process to reduce and control NOx emissions by lowering the temperature of combustion in the engine's combustion chambers, thereby minimizing the formation of NOx. A high-pressure, water-cooled, closed loop system takes a variably controlled portion of the engine exhaust and runs it through a cooling process. The cooled gas is reintroduced into the air intake mixer (i.e., with filtered ambient air), fed into the turbocharger for pressurization and released into the combustion chambers.

The DDEC IV enhancements provide a programmable engine management capability, which adjusts the EGR system to the various levels of engine operation. The incorporation of new EGR-related sensors, processor, and actuators allow for reliable systems integration and efficient performance. The EGR system is controlled by the enhanced ECM and calibrated with the engine modes of operation (i.e., steady state or transient modes) to maximize emissions reduction. Consistent NOx reduction is accomplished by linking the operating range of the engine map with the EGR system.

The originally proposed DaimlerChrysler LA OM-502 engine had a 3.73 grams per brake horsepower hour (g/bhp-hour) NOx profile. The DDC Series 60 will be 33 percent lower in NOx emissions. The Series 60 NOx level will be certified to the EPA engine certification standards which came into effect on October 1, 2002 at:

- 2.5g/bhp-hour for NOx and NMHC; and
- 0.05g/bhp-hour for particulate matter (PM).

DDC has completed the required testing and submitted its application for certification of the Series 60 engine to the EPA. NEOPLAN has ordered the Series 60 with diesel particulate filter (DPF) technology, thereby supporting the MBTA's enhanced policy for lower PM emissions (e.g., 0.01g/bhp-hour or less).

In summary, the DDC Series 60 will provide the MBTA and its customers with five distinct benefits over the original engine selection:

- Lowers NOx emissions by 33 percent utilizing the state-of-the-art EGR technology;
- Minimizes additional targeted pollutants (PM, hydrocarbons, and carbon monoxide);
- Uses an engine control system that contributes to more efficient engine operation, proactive maintenance, and time-sensitive troubleshooting;
- Has a proven track record of performance, durability, and reliability in the United States; and
- Possesses the power to support expansion of dual mode vehicle service to areas with steeper route topography.

3.3 Fuel

The MBTA's plan to use ultra low sulfur diesel (ULSD) fuel in the Silver Line dual mode vehicle remains unchanged. It is important to note that the MBTA has implemented the deployment of ULSD fuel for its entire urban bus fleet of 940 vehicles (Model Years 1984 to 1995). This major initiative enables the MBTA to:

- Gain experience in the handling of this new fuel product;
- Assess the mechanical impact on its diesel engines;
- Establish a secure supply of ULSD in compliance with the MBTA's specification (e.g., sulfur content, lubricity, cold weather characteristics); and
- Reduces the emissions from the entire bus fleet.

Current usage of ULSD provides a strong foundation for managing the future dual mode vehicle fleet operation. This experience with ULSD is the cornerstone for enabling the reliable operation and performance of DPF technology on the dual mode vehicle.

3.4 Aftertreatment

As reported in the previous Annual Update, the emissions control plan for the dual mode vehicle calls for a two-phase aftertreatment strategy. In Phase 1, which remains unchanged, DPF technology is integrated with the selected diesel engine on all vehicles procured. Subsequent to publication of the 2001 Annual Update, the MBTA has undertaken a DPF technology retrofit program focused on its Nova bus fleet. This program, now underway, involves the integration and installation of EPA-verified DPFs with its Series 50 Reliabilt engine re-power program. The MBTA's mechanics, maintenance, and training staffs are developing an important working knowledge of DPF systems technology in a retrofit application. This application allows MBTA personnel to work with this new technology in the most difficult operating and installation environment for DPF/engine integration. Experience gained here will well position the MBTA to operate and maintain DPF systems for the dual mode vehicles.

The future DPF-equipped dual mode vehicle's maintenance and operation will benefit from the MBTA monitoring DPF durability, developing related maintenance management practices, and establishing the necessary support infrastructure.

Phase 2 of the dual mode vehicle's emissions control plan proposed the pilot deployment of Selective Catalytic Reduction (SCR) technology for enhanced NOx reduction. As described in the previous Annual Update, the MBTA seeks to utilize SCR technology on the last two serial production units of the dual mode vehicle, preferably with the SCRT™ system, which combines NOx, PM, CO, and HC control in one physical unit.

The MBTA had stipulated that beyond this pilot demonstration, SCR technology needs to meet three requirements. First, EPA verification under the testing protocols of its Environmental Technology Verification Program (ETVP) is required. Second, the commercial availability of the SCRT™, or a single SCR system product, has to demonstrate a high degree of reliability and no adverse effect on the vehicle's overall operation. Finally, the SCR needs to be an approved retrofit product by the engine's original equipment manufacturer (OEM).

Several SCR-related developments have occurred since last year's Annual Update, which will further support future decision making by the MBTA. The EPA, in late February 2002, began its Technical Panel process under the ETVP to consider draft protocols for the verification of SCR technology, in support of its Voluntary Diesel Retrofit Program. The Technical Panel issued draft-testing protocols in the first week of April 2002 and met on April 8th to begin its stakeholder outreach process. The EPA will continue with this process, in the hopes of having a final SCR ETVP Testing Protocol completed by the third quarter of 2002. In addition to monitoring its progress and the outcomes, the MBTA will survey the progress of the proposed MACK/NESCAUM (Northeast States for Coordinated Air Use Management) SCR Pilot Program in the Northeast U.S. corridor. This involves 300 to 350 hp diesel engines on Class 8 trucks, which will be retrofitted with SCR. Data and experience generated by this program will be collected and assessed by the MBTA, as it becomes available, over the next 12 to 15 months.

The MBTA will track several other mobile SCR-related projects – underway or planned – as well as OEM and federal research and development efforts. These efforts may involve strategies for advancements in SCR technology. Other possible NOx reduction technologies may be developed to support future compliance with the 2007 EPA new engine certification standards for NOx.

3.5 Consistency with EPA Policies and Regulations

Changing to the DDC Series 60 EGR engine fully complies with the policies and regulations of the EPA. Detroit Diesel Corporation has submitted their application for full certification of the Series 60 engine product line in accordance with the new EPA emissions standards which took effect on October 1, 2002. DDC is confident that it will receive EPA certification for two reasons. First, it has been performing an extensive laboratory and in-service test program. Second, DDC has had success with integrating EGR technology on its popular and widely used Series 50 transit bus engine product. The Series 60 engine is a proven platform used extensively by highway and bus vehicle customers throughout the United States. The Series 60 EGR engine, based on the current engine design and enhanced with several mechanical and electronic control improvements, has demonstrated that it meets the October 2002 EPA standards.

3.6 Dual Mode Vehicle Emissions Assurance Program

Over the long term, the MBTA will control emissions for the dual mode articulated through a proactive Emissions Assurance Program (EAP) involving two parts:

1. Emissions control system maintenance; and

2. Emissions testing using the best available technology.

Emissions Control System Maintenance

To maintain low emissions from the dual mode vehicles, it will be necessary to maintain the engine, the fuel, and the aftertreatment for proper performance.

Engine maintenance procedures include mileage-based inspections, during which worn or faulty components are changed out or adjusted, and prompt response to reports of discolored smoke from the tail pipe. Normally, the emissions from the dual mode vehicle will be clear and invisible. In the event that the smoke should become visible, maintenance personnel will immediately troubleshoot and correct the problem.

Fuel maintenance means keeping the sulfur content low. The MBTA's contract with its fuel supplier provides for the sulfur content not to exceed 30 ppm and for the use of dedicated delivery trucks and storage tanks to eliminate the possibility of contaminating the ultra-low sulfur diesel fuel. In addition, the MBTA has ordered laboratory testing in the past to make sure that the ultra-low sulfur fuel has the proper sulfur content, and the Authority also will perform these tests in the future if necessary.

Aftertreatment maintenance is prescribed by the manufacturer. MBTA maintenance personnel have already been trained in the maintenance procedures for the diesel particulate filters already retrofitted on MBTA buses and will continue to follow the manufacturer's protocols for regular maintenance of this equipment.

The new dual mode engines will have more sophisticated electronic monitoring of the aftertreatment devices than the current bus fleet. In addition, DDC will provide an extensive training program for the complete engine and all emissions control components for MBTA maintenance personnel working on dual mode buses.

Emissions Testing

While emissions testing for engines is well developed, precise, and repeatable, the emissions testing technology for buses is limited. Acknowledging this problem, the MBTA is committed to monitoring developments in this field and adopting new emissions testing techniques as they become available and practical.

Remote sensor device (RSD) testing technology is under development for heavy-duty diesel engines. This technology involves testing emissions with a device adjacent to but detached from the bus. In theory, buses could simply drive by the device to obtain an analysis of emissions. The MBTA views this approach as promising. A considerable effort by federal agencies and private sector companies is underway to refine this technology.

Should RSD-based testing not reach acceptable levels of reliability, the MBTA may perform periodic chassis dynamometer testing on the dual mode vehicles, using an entity such as the West Virginia University Heavy-Duty Automotive Laboratory. This type of testing provides reliable, repeatable results, but is expensive and typically performed on a sample of vehicles for a snapshot of emissions levels. Chassis dynamometer testing is not practical for ongoing emissions monitoring for a fleet of vehicles.

4.0 Revised Air Quality Analysis

4.1 Introduction

As described in Section 3.0, there has been a change in the engine selected for the dual mode vehicle providing service on the Silver Line. The Detroit Diesel Corporation Series 60 engine has been selected in part due to its air quality emissions profile which is superior in terms of NOx emissions as compared to the previously selected Daimler Chrysler engine. Specifically, the Series 60 engine yields a 33 percent reduction in NOx emissions compared to the previous engine, and is also 37 percent lower than the current EPA engine emission standard.

This section describes the impact of the new engine on air quality conditions in the region. The air quality analysis presented below has been prepared for the Silver Line in 2005.[1] Two types of air quality analyses for 2005 have been prepared:

- A mesoscale analysis that addresses changes in pollutant emissions for criteria pollutants at the regional level. This analysis has been revised from the previous Annual Update to reflect changes in Silver Line ridership due to BRA's new land use projections for the Waterfront area in 2005 (see Section 2.2).

- A localized analysis of changes in total emissions in all criteria pollutants produced by transit operations within the entire Silver Line project area.

There are no changes to the microscale analysis as presented in the previous Annual Update.

4.2 Mesoscale Analysis

As discussed in Section 2.0, revised ridership forecasts for the Silver Line have been prepared to account for the BRA's new 2005 land use projections for the Waterfront area. Using the regional model, changes in travel behavior and diversions of auto trips to transit

[1] As described in more detail in the previous Annual Update, air quality analysis has not been performed for 2025 given insufficient information at this time on the type of vehicle to be operated in the full build Silver Line. Analysis of air quality impacts requires detailed knowledge of the emissions characteristics of the vehicle in operation.

as a result of the availability of new transit services have been calculated for each phase of Silver Line operation. In order to assess changes in regional mobile source emissions, these data were used in conjunction with emission factors produced by U.S. EPA's MOBILE5a_H emission factor model. The emission factor model is calibrated for Massachusetts-specific conditions for 2005 to incorporate current and predicted vehicle fleet characteristics and the implementation of various emission control programs such as enhanced vehicle inspection and maintenance (I/M). The results of this analysis are shown in Table 4.1.

Table 4.1 Regional VMT Reduction and Air Quality Benefits

	Reduction Compared to No Build Silver Line Phases I and II – 2005
Vehicle Miles of Travel	164,000
NOx (pounds/day)	657
CO (pounds/day)	3,848
VOC (pounds/day)	417

As indicated in the table, diversions of trips from auto to transit, resulting in a significant reduction in regional vehicle miles of travel, produce substantial regional air quality benefits through reduced emissions of oxides of nitrogen (NOx), carbon monoxide, and volatile organic compounds (VOC). Given the increased number of trips generated by new development projected by the BRA in the Waterfront area by 2005 and use of transit for a substantial share of those trips, the anticipated air quality benefits associated with Phases I and II of the Silver Line are greater than those shown in the previous Annual Update.

4.3 Emissions of Transit Operations

Consistent with the analysis conducted for the previous Annual Update, an assessment of changes in emissions produced by transit vehicles in the study area was performed to account for service changes and new vehicle technologies. The analysis compares the total emissions produced by each vehicle mode for each phase of implementation, accounting for changes in Silver Line service over time. These emissions are compared to a no build scenario which accounts for emissions from the Route 49 bus service, the only existing route proposed to be changed as Silver Line service is phased in. Route 49 service has been eliminated with Phase I Silver Line operation. All other MBTA services are assumed to remain unchanged.

The analysis assumes operation of the following services and modes:

- **No Build (year 2000)**
  - Route 49 (Conventional Bus)
- **Silver Line Phases I and II (year 2005)**
  - Dudley to Downtown (CNG);
  - South Station to BMIP (Dual Mode);
  - South Station to Logan (Dual Mode); and
  - South Station to BCEC (Dual Mode).

As discussed in Section 3.0, the key change in this analysis from the previous Annual Update reflects the selection of the Detroit Diesel Series 60 engine for use in the dual mode articulated vehicle. This results in a substantial reduction in projected NOx emissions during the diesel operating (GenSet) phases of the dual mode vehicle's operation.

Table 4.2 shows the vehicle miles of travel (VMT) generated by transit operations and the resulting transit-related emissions for each scenario. Emission factors for each mode were based on rates provided by the vehicle manufacturers. Vehicle miles of operation for each mode were provided by the regional travel demand model. As indicated, total emissions attributable to transit operations are shown to increase. However, this is offset by a significant increase in overall transit service within the study area.

Table 4.2 Vehicle Miles of Travel by Mode and Total Transit Emissions

	Total VMT by Mode					Total Emissions (Pounds per Day)			
Phase of Operation	Diesel	CNG	Electric	GenSet	Total VMT	CO	NMHC	NOx	PM10
No Build (2000)	613	NA	NA	NA	613	4.1	0.3	40.7	0.3
Phases I and II (2005)	NA	677	904	925	2,506	30.5	6.3	88.0	0.3

Further offsetting the impact of increased total transit emissions is the decrease in overall regional emissions of criteria pollutants as a result of diversions of auto trips to transit. This net reduction in regional emissions is described in Section 4.3. Table 4.3 illustrates the overall net benefit in 2005 resulting from the implementation of Phases I and II of Silver Line service by subtracting the increase in transit emissions from the calculated change in regional emissions shown in Table 4.2. (It should be noted that the calculations of change in regional emissions shown in Table 4.2 does not account for emissions related to transit operations in the Silver Line study area in order to avoid double counting.) The

resulting change in overall emissions clearly indicates that there are significant net regional benefits resulting from the implementation of Silver Line service.

Table 4.3 Changes in Net Regional Emissions[2]

	Total Emissions (Pounds per Day)			
	CO	NMHC	NOx	PM10
Phases I and II (2005)	-3,817	-410	-569	NA

4.4 Summary

The air quality analyses performed for this Annual Update demonstrate significant reductions in all categories of pollutants as a result of Silver Line implementation. Although there is an increase in emissions resulting from transit vehicle operations (in conjunction with a substantial increase in the level and quality of transit service), this increase is fully offset at the regional level due to a reduction in auto trips which are diverted to transit.

[2] Change from No Build: Regional + Transit Emissions.

5.0 Silver Line Phase III Conceptual Design

5.1 Introduction

The Secretary's August 1999 certificate directed the MBTA to report on the revised station design for Boylston Station, showing continuation of the Silver Line tunnel to connect with Washington Street service, and the final tunnel portal and station design at New England Medical Center, including a below-grade connection to the existing Orange Line station. This section describes the conceptual design that has been completed in response to this direction, including a realignment of the tunnel between South Station and Boylston Station.

The Silver Line represents the integration of formerly separate bus rapid transit (BRT) planning and project development efforts in the Boston core and Waterfront area. These efforts include the MBTA's two-phase South Boston Piers Transitway project, connecting the Boston core and South Boston Waterfront area, and Washington Street Replacement Service, operating between Dudley Square and downtown Boston. In addition to these two MBTA projects, the Silver Line also incorporates the Massachusetts Port Authority's Airport Intermodal Transit Connector (AITC) project providing BRT service between South Station and Logan International Airport. By combining these projects, the Silver Line will provide a "one-seat" ride from Dudley Square to the South Boston Piers Waterfront area and Logan Airport, as shown in Figure 5.1.

Phase III of the Silver Line consists of a tunnel connection between the existing South Station and a new station at New England Medical Center in downtown Boston. This tunnel provides the operational link connecting Silver Line Phase I, defined as the MBTA's Washington Street Replacement Service, and the Silver Line Phase II, consisting of a tunnel extending from South Station to the World Trade Center in the South Boston Waterfront area, combined with AITC service to and from Logan International Airport.

In October 2001, the MBTA completed the *Silver Line Phase III Conceptual Design Report.* The Silver Line Phase III conceptual design consists of the new Tremont Street tunnels, the new Silver Line station at New England Medical Center, and the Dewey Square tunnel segment from South Street to South Station. It further provides a review of the existing conceptual design and cost estimate prepared for the *Essex/Boylston Street Alignment Conceptual Design* (Essex Street Alignment) prepared in April 2000. This April 2000 report provided a conceptual design for an alignment along Boylston and Essex Streets which represents a change from the Avery Street alignment presented in the 1993 FEIS/FEIR for

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SILVER LINE

COMPLETE SILVER LINE

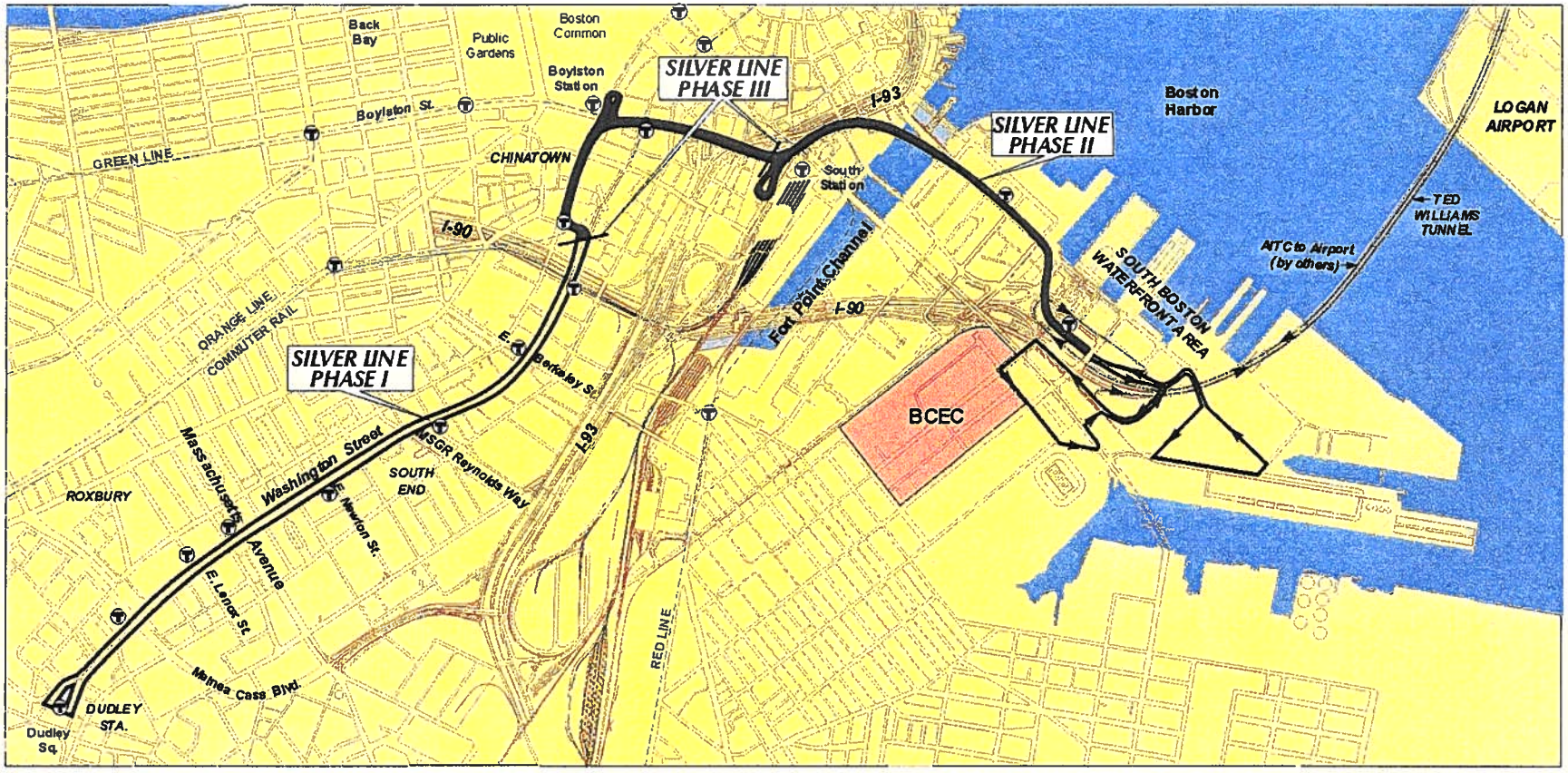

Figure 5-1

the South Boston Piers Transitway. That FEIS/FEIR also provided a conceptual design for a tunnel connection to the Washington Street Replacement Service at Boylston Station.

The *Silver Line Phase III Conceptual Design Report* was used as the cost basis for a request to FTA to initiate preliminary engineering on the Phase III project (see Section 6.0 for more detail on this FTA submission). As described in Section 1.3, an Environmental Assessment/ Notice of Project Change will be prepared in the near future to examine the environmental impacts of the alignment change and the addition of the Tremont Street tunnel to the New England Medical Center Station. The new Tremont Street tunnel from New England Medical Center to Boylston Station and the new tunnel along Boylston and Essex Streets, with a new Chinatown Station, to South Station will comprise the proposed Silver Line Phase III, as shown previously in Figure 5.1.

5.2 The Essex/Boylston Street Alignment

The tunnel alignment for the Silver Line from South Station to Boylston Station (previously referred to as the Transitway full build) was originally proposed along an Essex and Avery Street alignment designed and documented in the 1993 FEIS/FEIR for the South Boston Piers Transitway. This alignment is shown in dashes in Figure 5.2. In April 2000, a conceptual design for the Essex/Boylston Street alignment was presented in the *Essex/ Boylston Street Alignment Conceptual Design*. The design of this alignment, which is shown with solid lines in Figure 5.2, was used to update the cost estimate for Silver Line Phase III that was included in the October 2001 *Phase III Conceptual Design Report*.

The *Essex/Boylston Street Alignment Conceptual Design* report provided a basic conceptual design, alignment, and profiles for the proposed tunnels and stations along the Essex Street alignment. The April 2000 report outlines mined tunneling as the basic method of construction for the tunnels and stations along this alignment. Mined tunneling for the Essex Street alignment was generally laid out and addressed with the exception of the short segment between South Street (starting below the existing Central Artery tunnel at Dewey Square) and the Phase II Silver Line tunnels already in place at Atlantic Avenue. As a result, a conceptual design for this small tunnel segment was prepared and presented in the October 2001 report.

The Essex/Boylston Street alignment is preferable to the previous Avery Street alignment, for the following key reasons:

- Although underpinning of adjacent structures may be required on either alignment, the Essex/Boylston Street alignment reduces impacts on private property. Specifically, it will not need to pass directly beneath any structures; in contrast, the Avery Street alignment passed completely beneath both the Millennium Place Development and the Textile Building and through the parcel at Hayward Place.

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SILVER LINE

SILVER LINE PHASE III

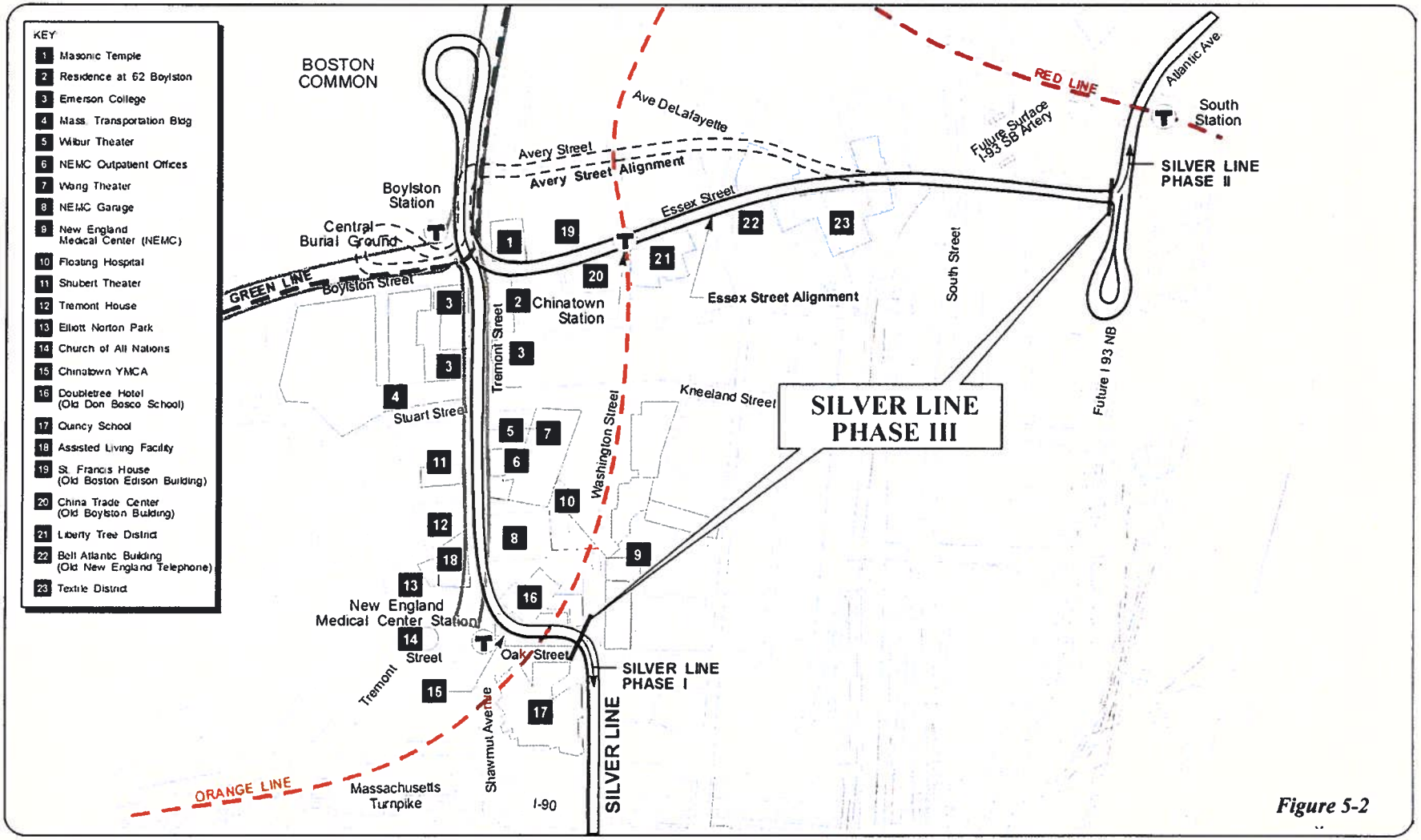

Figure 5-2

- It provides a grade-separated crossing of the tunnels entering and exiting Boylston Station. This is a safer tunnel configuration than the Avery Street alignment which used an at-grade tunnel crossing entering and exiting the station.

- It eliminates the need for a 290-foot long pedestrian tunnel connecting the proposed Silver Line Chinatown Station with the existing Orange Line Chinatown Station by locating the new Silver Line station beneath the Orange Line station.

- It reduces the impact to historic and culturally sensitive areas of the Boston Common by relocating the Boylston Station turn-around loop from beneath the Central Burial Ground to a location north of the proposed station.

- It is a reduced price alternative to the Avery Street alignment (see April 2000 report and comparison of cost estimates).

Both alignments have equivalent impacts to the historic and cultural aspects of downtown neighborhoods and therefore the shifting of the alignment is not considered to create any significant new impacts. The Essex/Boylston Street alignment is a more direct route from South Station to Boylston Station with improved pedestrian circulation at Chinatown and Boylston Stations. Finally, this alternative alignment allows the Silver Line to be constructed almost entirely within existing public rights-of-way.

5.3 New Tunnels on the Tremont Street Alignment

The Tremont Street alignment provides an extension of the Silver Line tunnel from Boylston Station to New England Medical Center Station, and enables an operational connection with Washington Street service. The alignment begins with two, single-lane tunnels connecting to the tunnels between Boylston Station and the Essex Street alignment. The two tunnels continue south down Tremont Street and become a double-lane tunnel. The double-lane tunnel diverges from Tremont Street through the platform areas of the new Silver Line station at New England Medical Center just before the tunnel portals from beneath Tremont Street. A busway ramp provides a transition from the portal to the surface at Washington Street. The busway ramp passes through a new station mezzanine that will provide a direct connection to the Orange Line at New England Medical Center Station. As the busway ramp rises, it turns left alongside Oak Street and then intersects Washington Street.

In an effort to minimize impacts to the surrounding areas, the conceptual design recommends using two proven construction techniques – mining and cut-and-cover. An inspection of the existing historic tunnels beneath Tremont Street was conducted to determine their use in the development of the Silver Line Tremont Street alignment. The tunnels were found to be in good condition but did not provide adequate clearances and geometry to meet the specifications of the BRT and potential future light rail uses. However, the existing tunnels may be used to facilitate the construction of the new tunnels and station.

By utilizing the existing historic tunnels beneath Tremont Street, certain impacts from construction operations will be minimized. Along the Tremont Street alignment, a tunnel connection will be provided under Tremont Street from Boylston Station to the Phase I Washington Street service at a new Silver Line New England Medical Center Station. In addition, new stations will be constructed beneath the existing Chinatown (Orange Line) and Boylston Stations (Green Line) providing direct access from the Silver Line to these existing MBTA transit lines. The new Silver Line station at New England Medical Center Station will provide the connection between the Silver Line and the Orange Line, as shown previously in Figure 5.2. Along the Essex Street alignment, a tunnel connection will be constructed between Boylston Station and South Station (this represents the full build section of the Transitway – and connection to Silver Line Phase II that terminates at South Station).

The Silver Line Phase III tunnel design envelope will be consistent with the existing design prepared previously for the South Boston Piers Transitway tunnels and stations from South Street to Boylston Station. This envelope will incorporate a tunnel height of 15' 3" to 16' 9" from running surface to crown of tunnel with a typical width of 15 feet. To minimize potential impacts to buildings along the Tremont Street and Essex Street alignments, mined tunneling of the proposed tunnels is recommended as the preferred method of construction to minimize disruption of vehicle and pedestrian traffic. The New Austrian Tunnel Method (NATM) should be considered, where possible, based on its successful application in similar ground conditions.

5.4 New Silver Line Stations

As part of Silver Line Phase III, three Silver Line stations will be constructed. Those stations are the New England Medical Center, Boylston, and Chinatown Stations.

5.4.1 New England Medical Center Station

The New England Medical Center (NEMC) Station is a key design component of Phase III of the Silver Line. This station will provide access to the Silver Line and the Orange Line station below through a mezzanine connection at the south end of the existing NEMC Station. The station platform will be located along Tremont Street north of Oak Street and just west of the Boston Redevelopment Authority (BRA) property defined by Tremont, Oak, and Washington Streets, and the NEMC garage (see Figure 5.3). The Chinatown YMCA building that currently occupies the location of the proposed Silver Line busway ramp to Washington Street will need to be demolished and relocated to a new, off-site location. The Doubletree Hotel and the Chinatown YMCA each have a lease agreement with the BRA and each currently operates and manages buildings on the site under these agreements.

The Silver Line platforms will be located one level below grade and just north of the portal where the new Silver Line will enter the Tremont Street tunnels; the existing Orange Line platforms will remain two levels below grade. The pedestrian entrance to the new station at the south end of the NEMC will direct patrons toward the corner of Tremont and Oak Streets to the location of the existing Orange Line headhouse for NEMC (South Cove entrance). Given its location in the vicinity of the Quincy elementary school, the transition from the surface route to the tunnel must be safe and well-engineered.

Patrons will enter the new combined station through the at-grade lobby. A glazed entrance will provide visual transparency to the elements of vertical circulation (stairs, escalators both up and down, and an elevator) which will bring patrons to an unpaid mezzanine. Upon arrival at the mezzanine level, patrons will pass through a centralized fare collection area to the paid area, which will provide connections and inter-connections to both the Orange Line and Silver Line.

A new mezzanine will connect the new Silver Line platforms with the existing Orange Line mezzanine at the South Cove entrance. The mezzanine will be one level below the street and contain the central fare collection area described above. Furthermore, the mezzanine may be used as a gallery for a display that features the historic subway tunnels of Boston, including the 1897 tunnels that were utilized during the construction of the new Silver Line tunnels beneath Tremont Street. Coordination of this display between the MBTA and the Massachusetts Historic Commission (MHC) to mitigate the removal of the historic tunnels has been initiated.

5.4.2 Silver Line Station at Existing Boylston Station

The existing Green Line Boylston Station will be modified by the Silver Line. Specifically, a new Silver Line station will be constructed below and parallel to the existing, historic Boylston Station and Green Line tracks. The new Silver Line platform will provide access to the Green Line platforms above. The construction of the new station will not affect the historic headhouses at Boylston Station, but may result in temporary impacts to Boston Common during station construction. Connecting the tunnels of the Tremont Street alignment to the expanded Boylston Station will be a major undertaking due to their location adjacent to the Boston Common and the historic Theatre District and the presence of an operating subway line (Green Line) and an existing abandoned subway line. Boylston Station will be altered to accommodate the new Silver Line platforms by providing two additional levels beneath the station.

Patrons will continue to enter Boylston Station through the two historic headhouses located on the Boston Common that bring patrons down to one of two Green Line platforms – one inbound and one outbound. Through the modification of the station, stairways and elevators access to the combined inbound/outbound Silver Line one level below will be provided. Fare collection will remain in its current locations. New emergency egress stairways will be constructed on the ends of the Green Line platforms. The new egress stairways will provide emergency, exit-only access from the Green Line platforms to the street level within the existing sidewalk boundaries of Lafayette Mall.

Stairs and elevators will provide egress to and from the single, Silver Line platform one level below the Green Line. This will allow Silver Line passengers access to and from both Green Line platforms above. The new Silver Line platform will consist of a central platform 220 feet in length and varying in width from 20 to 30 feet. The platform will be level with no longitudinal slope. The busway is located on the west side of the platform. After passenger pick-up and drop-off, the buses will proceed north from the platform into the busway tunnel turnaround. The buses are redirected southbound and return one level below the new Silver Line platforms and then connect with the tunnels of the Tremont Street or Essex Street alignments.

5.4.3 Silver Line Station at Existing Chinatown Station

The existing Orange Line Chinatown Station will be modified by the Silver Line. Specifically, a new Silver Line station will be constructed below the existing Chinatown Station. The new Silver Line platform will provide access to the Orange Line platforms above. Connecting the tunnels of the Essex Street alignment to the expanded Chinatown Station will be a significant undertaking due to their location adjacent to buildings such as the Millennium Place Building, 600 Washington Street, the Liberty Building, and the existing Orange Line station. Chinatown Station will be altered to accommodate the new Silver Line platforms by providing one additional level beneath the station.

Patrons will continue to enter Chinatown Station through the two inbound entrances and one outbound entrance along Washington Street that bring patrons down to one of two Orange Line platforms – one inbound and one outbound. Through the modification of the station, stairway and elevator access to the separate inbound and outbound Silver Line platforms one level below will be provided. Fare collection will remain in its current location for the inbound Orange Line platform, but will be relocated into a reconstructed Orange Line mezzanine area for the outbound platform. Existing stairways that provide secondary access from the Orange Line platforms to the street will need to be renovated and reopened, or new emergency egress stairways will be constructed to comply with current code guidelines.

Stairs and elevators will provide egress to and from the two Silver Line platforms one level below the Orange Line. This will allow Silver Line passengers access to and from both Orange Line platforms above. The new Silver Line platform will consist of a two side platforms around a central busway. Each platform will be approximately 220 feet in length and approximately 10 to 12 feet in width. The platforms will be level with no longitudinal slope. After passenger pick-up and drop-off, the buses will proceed east or west to South Station or Boylston Station, respectively.

5.4.4 Environmental Consequences of Change in Phase III Alignment

The MBTA anticipates very few, if any additional environmental impacts associated with the change and lengthening of the Silver Line Phase III alignment over those described and analyzed in the 1993 FEIS/FEIR prepared for the Transitway Project. In fact, the

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SILVER LINE

NEW STATION & PLATFORM AT NEW ENGLAND MEDICAL CENTER

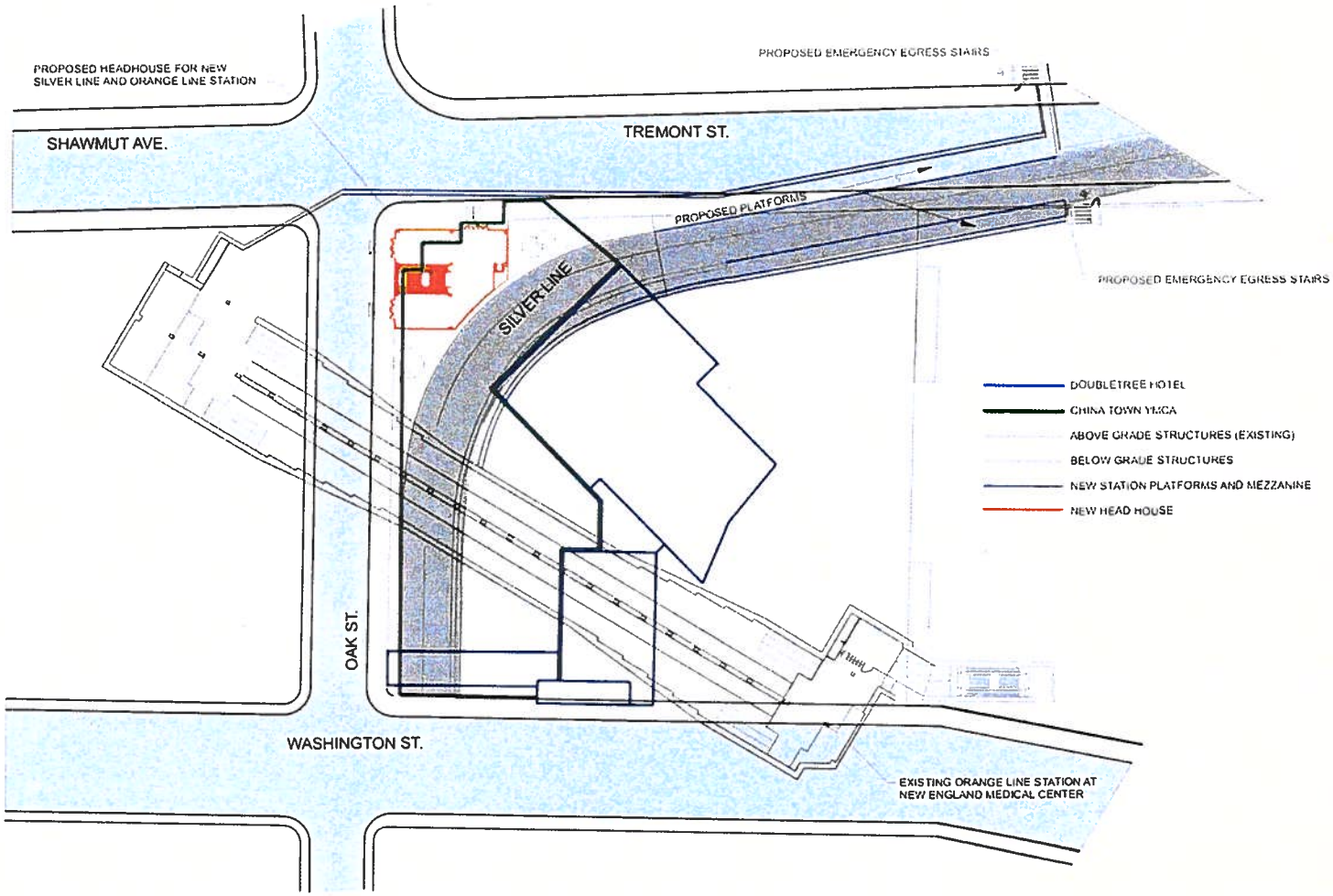

Figure 5-3

MBTA anticipates a lessening of certain environmental impacts as a result of the change and a corresponding increase in environmental benefits, without causing any other increase in impacts that were not identified in the FEIS/FEIR. Table 5.1 identifies the potential impacts that may result from the change and lengthening of the tunnel alignment between South Station and New England Medical Center. As shown, nearly all of the environmental impacts are either equal to or in some cases less than those reviewed and approved in the FEIS/FEIR.

The MBTA therefore foresees no significant impacts over those previously reviewed and approved via the FEIS/FEIR. The major impacts of the Silver Line Phase III project are to historic and parkland resources. The historic and cultural resources are impacted to the same magnitude and style as those identified in the FEIS/FEIR, although the specific resources impacted are along the Boylston/Essex alignment. The previously anticipated impacts to the Boston Common are significantly reduced, and the impacts to the Central Burial Ground are avoided. The specific impacts to other cultural and parkland resources as a result of the change in alignment, and the means to avoid, minimize, or mitigate the impacts to the resources, will be fully examined and described through future Section 106 and Section 4(f) processes.

The MEPA regulations found at 310 CMR 11.10(6) provide guidance as to what the Secretary of EOEA should consider as to whether or not a change in a project might significantly increase environmental consequences, and as such, whether further MEPA review is warranted. These considerations are:

- **Expansion of the project**: Changing the alignment from Avery Street to Essex Street does not expand the project to any significant degree. As calculated in lane feet beginning at Kingston Street, the Avery Street alignment would have been approximately 4,050 feet. The new alignment along Essex Street will be approximately 4,260 feet, less than a 10 percent exceedance over what was previously reviewed. Although the tunnel along Essex Street is shorter than the tunnel along Avery Street, the Essex Street alignment is longer than the Avery Street alignment due to a reengineered turnaround loop at Boylston Station that has an increased turning radius than the previous loop.

- **Generation of further impacts**: The change in alignment does not create further impacts. In fact, impacts to historic and parkland resources, specifically the Boston Common and Central Burial Ground, are reduced.

- **Change in the expected date for commencement of the project**: There is no change in the commencement of the project. Rather, the project has already commenced, with construction completed for Phase I (Washington Street) and underway for Phase II (South Boston Waterfront). The change in alignment does not alter the anticipated service commencement date for any phase of the project; Phase I service was initiated in July 2002.

- **Change of the project site**: The new alignment is not a new site. The new alignment is clearly within the corridor studied previously, and does not in any way alter access

to the project. The number of stations, and access to them, remains the same as what has been reviewed previously.

- **New application for a permit or new request for financial assistance or land transfer:** The change in alignment does not require any new permit, new financial assistance, or any land transfer that would be subject to MEPA.

- **A change that prevents or materially delays realization of benefits:** The change in alignment does not alter the environmental or transportation benefits of the project. The new alignment would not result in any changes to the customer's access to stations and does not materially alter the travel time or the service levels in any way.

- **Changes in the ambient environment or information concerning the ambient environment:** The change in alignment does not involve any lapse in time, and as a result, there are no correlating changes in the ambient environment.

The MBTA firmly believes that the potential impacts from the change do not result in any additional environmental impacts; rather the change affords a lessening of the significant impacts to the Boston Common and the Central Burial Ground without causing any increase in other impacts. The MBTA has always planned on extensive Section 106 and Section 4(f) processes to fully identify the impacts to resources when the project is at a sufficient level of design. These same processes will occur with the new and extended alignment. The mitigation that results from these two federal processes will be incorporated into the revised Draft and Final Section 61 Findings. As a result, the MBTA believes that no additional MEPA review of this change in and extension of the Silver Line Phase III alignment is needed.

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Air Quality	The FEIS/FEIR identified the ridership, and associated VMT and air pollution reductions that would result from the project. The air quality benefits of the project would be significant.	The new alignment would not result in any changes to the customer's access to the station, nor any changes to level of service. As such, ridership, and therefore any quality benefits, would remain unchanged.	The new alignment would have identical air quality benefits as those identified in the FEIS/FEIR. Specifically, there would be zero emissions associated with this tunnel section, since the dual mode vehicle will operate via catenary in tunnel.
Cultural Resources (Historic Properties and Archaeological Resources)	The FEIS/FEIR identified historic and archeological resources in the vicinity of Boylston Station. These resources include the Piano Row historic district, the Tremont Street Subway tunnels, the Central Burial Ground, and the Boston Common among others.	The same historic districts would be impacted by the project. The new alignment would still incorporate stairways and a headhouse on the Boston Common, identical to what was identified in the FEIS/FEIR.	The new alignment is expected to result in fewer impacts to the Boston Common and avoidance of any impacts to the Central Burial Ground.

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project (continued)

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Cultural Resources (Historic Properties and Archaeological Resources (continued)	The FEIS/FEIR also identified the Boston Common and the Central Burial Ground as the historic resources impacted by the original alignment. The Boston Common is the oldest public park in America and is listed on the National Register, as is the Central Burial Ground. The original alignment required slurry wall construction along Tremont and Boylston Streets, tunneling beneath the Boston Common and Central Burial Ground, and the installation of temporary structures (such as dewatering wells) that would be removed and the Common fully restored after construction. Vertical circulation elements to provide handicapped access from the Green Line to the surface was included in a separate Green Line station rehabilitation and accessibility project. Final design and impacts to the Common would be further analyzed through Section 4(f) and Section 106 processes as well as review by the Massachusetts Historical Commission, the Boston Landmarks Commission, and the Boston Parks and Recreation Department.	The new alignment would result in changes to Boylston Station and the turnaround loop such that it avoids the Central Burial Ground. Work underneath the Boston Common would still result, although it involves less encroachment to sensitive areas than the original alignment. The Section 4(f) process and the Section 106 process would more specifically identify impacts and mitigation.	

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project (continued)

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Cultural Resources (Historic Properties and Archaeological Resources (continued)	The original alignment would provide a turnaround loop that encroached upon the plan area of the Burial Ground. The turnaround loop would be mined. Specific construction means and methods, and their associated impacts, would be identified in the 4(f) and Section 106 processes.		
Ecologically Sensitive Areas	The FEIS/FEIR did not identify any ecologically sensitive areas impacted by the project. The highly urbanized character of the study area severely limits the extent of upland vegetation, and therefore limits any wildlife habitat.	The FEIS/FEIR did not identify any ecologically sensitive areas impacted by the project. The highly urbanized character of the study area severely limits the extent of upland vegetation, and therefore limits any wildlife habitat.	The new alignment would have the same impact – none – on ecologically sensitive areas as those identified in the FEIS/FEIR.
Endangered Species	The FEIS/FEIR found that the general lack of vegetation reduces the area's value for wildlife habitat, although typical urban species are present. No endangered or threatened species impacts were identified.	The new alignment places the project in the same urban area. The occurrence of any endangered species or threatened species in the area is highly unlikely.	The new alignment would have the same impact on endangered species – none – as those identified in the FEIS/FEIR.

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project (continued)

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Energy	The FEIS/FEIR identified a savings of over 300 billion BTU annually resulting from the switch from automobiles to transit.	The energy requirements of the change of the alignment will change only nominally, if at all, over those identified in the FEIS/FEIR.	The new alignment would result in a slightly greater energy savings than that identified in the FEIS/FEIR.
Land Use	The FEIS/FEIR identified a land use that would be significantly enhanced by increased transit access, particularly by linking a transit dependent corridor with a high growth economic development area.	The same land use enhancements would be realized under the new alignment, since access to stations and their general location, as well as service levels would remain unchanged.	The new alignment would have the same impact on land use as identified in the FEIS/FEIR.
Noise and Vibration	The FEIS/FEIR did not identify any long-term noise and/or vibration impacts resulting from the operation of the system due to the depth of the tunnel below grade.	The new alignment would have the same noise and vibration impacts as the FEIS/FEIR alternative, since the project remains an underground tunnel system.	The new alignment would have the same noise and vibration impacts as those identified in the FEIS/FEIR, although on certain different properties.

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project (continued)

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Parklands	The FEIS/FEIR identified the Boston Common and the Central Burial Ground as the major parkland impacts associated with the original alignment. The Boston Common is the oldest public park in America and is listed on the National Register, as is the Central Burial Ground. The original alignment required slurry wall construction along Tremont and Boylston Streets, tunneling beneath the Boston Common and Central Burial Ground, and the installation of temporary structures (such as dewatering wells) that would be removed and the Common fully restored after construction. Vertical circulation elements to provide handicapped access from the Green Line to the surface was included in a separate Green Line station rehabilitation and accessibility project.	The new alignment would still result in the stairways and headhouse on the Boston Common, identical to what was identified in the FEIS/FEIR. The new alignment would result in changes to Boylston Station and the turnaround loop such that it avoids the Central Burial Ground. Work underneath the Boston Common would still result, although it involves less encroachment to sensitive areas than the original alignment. The Section 4(f) process and the Section 106 process would more specifically identify impacts and mitigation.	The new alignment is expected to result in fewer impacts to the Boston Common and avoidance of any impacts to the Central Burial Ground.

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project (continued)

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Parkland (continued)	Final design and impacts to the Common would be further analyzed through Section 4(f) and Section 106 processes as well as review by the Massachusetts Historical Commission, the Boston Landmarks Commission, and the Boston Parks and Recreation Department.		
Soils and Hazardous Materials	The FEIS/FEIR identified the potential for hazardous soil and/or materials to be identified as a result of tunneling. All materials would be handled in full compliance with state and federal requirements for handling and/or disposal of hazardous materials.	The new alignment would likely uncover the same type of hazardous soils during tunnel construction. Hazardous soils would be handled in the same manner as identified in the FEIS/FEIR.	The new alignment would have the same impacts associated with soils and hazardous materials as those identified in the FEIS/FEIR.

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project (continued)

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Temporary Construction Impacts	Temporary construction-related impacts to business activities in the area adjacent to the project work zone would be mitigated through the maintenance of pedestrian and vehicular access, provision of appropriate signage, and the selection of the least disruptive feasible construction methodology. Air quality impacts would be localized, temporary, and mitigatable. Noise impacts would be minimized by limiting construction activities to daytime hours.	The new alignment is likely to result in the same temporary impacts, both in terms of the type of impacts and in terms of the residences and businesses affected. The temporary impacts to the Boston Common, however, would be greatly reduced since the amount of tunneling under the park is reduced. Identical means and measures for reducing and mitigating the impacts would be used during the construction of the new alignment.	The new alignment would have the same temporary construction impacts on properties as those identified in the FEIS/FEIR, although the temporary impacts on the Boston Common are reduced.
Visual	The FEIS/FEIR did not find any significant visual impacts. The project is below ground and only limited structures, such as elevators and vent shafts, are visible at the surface level. Signage and entrances will be compatible with the surrounding areas.	The visual impacts of the new alignment would be identical to those identified in the FEIS/FEIR. The changes involve all subsurface work. The vent shaft and elevators would continue to occur in the new alignment.	The new alignment would have the same visual impacts as those identified in the FEIS/FEIR.

Table 5.1 Comparison of Environmental Impacts for the Silver Line Phase III Project (continued)

Environmental Impact Assessment	Impacts Identified in the FEIS/FEIR	Impacts Anticipated From New Alignment	Comparison of Impacts
Wastewater	The FEIS/FEIR did not identify any significant wastewater impacts resulting from the project tunnel. All wastewater and stormwater from the tunnel system would be handled in accordance with state and federal discharge regulations.	The new alignment would have identical wastewater and stormwater issues. All waste and stormwater would be handled in the same manner as identified in the FEIS/FEIR.	The new alignment would have the same wastewater and stormwater impacts as those identified in the FEIS/FEIR.
Water Consumption	The FEIS/FEIR did not identify any water consumption associated with the tunnel component of the project. All water consumption resulted from the maintenance facility and from stations.	The new alignment does not alter the amount of water consumption.	The new alignment would have the same water consumption as identified in the FEIS/FEIR.
Waterways and Coastal Zones	The original work area did not impact any waterways regulated by the Army Corps or the Coast Guard. The project area is landward of the Coastal Zone boundary.	The new project zone is in an area similar to the original zone. As a result, the new project area will not impact any waterways regulated by the Army Corps or the Coast Guard. The area is landward of the Coastal Zone boundary.	The new alignment would have the same impacts – none – on waterways and the coastal zone as those identified in the FEIS/FEIR.
Wetlands	The FEIS/FEIR found that the original alignment would not impact any state or federal wetland resource.	The new alignment is in the same type of developed urban area, and as such, will not impact any state or federal wetland resource.	The new alignment would have the same impact – none – on wetland resources as those identified in the FEIS/FEIR.

6.0 Federal Funding and Project Schedule

6.1 Introduction

The Secretary's August 1999 certificate directed the MBTA to report on details of the federal funding submission for the Silver Line Phase III tunnel, and the schedule of final design and construction to meet the Phase III completion date. This section describes that submission and schedule, as well as some key legislative changes and potential changes as a result of reauthorization of the Transportation Efficiency Act for the 21st Century (TEA-21) that may affect the level of federal funding available for all New Starts projects, including the Silver Line, in the future.

6.2 New Starts Process and Silver Line Phase III Submittal

Eligibility for receipt of Section 5309 funds from FTA for a proposed New Start project involves the preparation of a request to FTA to enter into the so-called "New Starts pipeline." The pipeline represents all transit major capital investment New Starts projects nationwide that have undergone a project justification screening process and are deemed by FTA to be worthy of advancement for consideration of Section 5309 funding. Projects in the pipeline are either in preliminary engineering or final design.

The process for receiving FTA approval to enter the pipeline involves preparation and submittal to FTA of a request to initiate preliminary engineering and documentation of a broad set of criteria for project justification and local financial commitment. The request must also document adoption of the project into the metropolitan transportation plan and the programming of the preliminary engineering activity in the Transportation Improvement Plan (TIP). The project justification criteria include:

- Mobility improvements, measured in terms of travel time savings, low-income households served, and the number of jobs within a half mile of proposed transit stations;
- Environmental benefits, measured in terms of air quality emissions and energy consumption;
- Operating efficiencies, measured in terms of operating cost per passenger-mile;

- Cost effectiveness, measured in terms of incremental cost per new rider;[1]
- Transit-supportive existing land use and future patterns; and
- Local financial commitment, assessed in terms of the proposed share of total project costs to be funded by Section 5309 New Starts funds, the strength of the proposed capital financing plan, and the ability of the sponsoring agency to operate and maintain its existing system once the New Starts project is built.

It should be noted that the local financial commitment criterion weighs very heavily in FTA's assessment and rating process for New Starts projects, both in terms of approving projects for entry into the New Starts pipeline, and for funding recommendations to Congress. Specifically, to be recommended for funding, a project must be rated at least "medium" for local financial commitment. Anything less, even with very high ratings for all other criteria, will result in a "not recommended" rating from FTA.[2]

For projects approved into the pipeline, Section 5309 funding is recommended by FTA to Congress through a highly competitive, multi-year process that requires submittal to FTA of annual New Starts project justification reports and completion of all stages of project development, including environmental review, preliminary engineering, and final design. Once all of these requirements are met and FTA recommends the project for New Starts funding, Congress must first concur with FTA's recommendation before a contractual agreement known as Full Funding Grant Agreement (FFGA) is negotiated and executed. A FFGA specifies the total amount of federal funding to be allocated to the project, as well as an estimate of funds that will be provided each year, subject to Congressional appropriation. In other words, the amount of funds provided to a transit New Starts project that has an executed FFGA could vary from the cash drawdown schedule contained in the agreement in any given year. However, projects with FFGAs receive first priority for appropriation of Section 5309 funds, and FTA and Congress collectively attempt to deliver on FFGA commitments.

There is intense competition nationwide for limited Section 5309 New Starts funding. The discretionary Section 5309 grant program has proven enormously popular, with roughly two dozen FFGAs executed to date and another dozen expected to be in place by 2004. In addition, there are approximately another 50 projects currently in the New Starts pipeline, which does not include Phase III of the Silver Line. The MBTA currently has an executed FFGA for Phase II of the Silver Line, to construct the tunnel from South Station to the Waterfront area.

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[1] A new measure of cost effectiveness has been adopted by FTA, to more fully measure transportation system user benefits. However, the analytical tool to calculate this measure is still under development by FTA and is not currently available for application to all proposed transit New Starts projects.

[2] More detail on the New Starts evaluation and rating process can be found on the FTA web site at http://www.fta.dot.gov/library/policy/ns/nserp.htm.

The MBTA submitted its request to initiate preliminary engineering for Phase III of the Silver Line to FTA on January 11, 2002. FTA has assessed this request and the associated New Starts project justifications as listed above. Approval of the MBTA's request was received from FTA on July 19, 2002, permitting the Silver Line Phase III to enter the New Starts pipeline.

6.3 Federal New Starts Share

As described above, FFGAs represent the contractual documents signed by FTA and each New Start project sponsor to establish the federal share of total costs for the project. Under TEA-21, the federal share for New Starts projects, like most other surface transportation investments, has been capped at 80 percent. However, this federal share recently has been debated by the Administration and Congress, with the Administration arguing for a 50 percent federal share on New Starts projects. In fact, the conference report for the FY 2002 Department of Transportation and Related Agencies Appropriations Act signed by President Bush on December 18, 2001 directs FTA not to enter into any FFGAs after September 2002 that have a federal share of more than 60 percent. Administration support for an additional reduction in the New Starts funding share to 50 percent will be the subject of further debate as TEA-21 is reauthorized.

Interpretation of this conference report language, which does not appear in the act itself, is problematic. On the one hand, since the Appropriations Act does not contain the language directing FTA not to sign any FFGAs with federal share in excess of 60 percent, the statutory federal/local match ratio remains 80/20. At the same time, Congressional intent is clear that the federal New Starts share should be reduced, and FTA is unlikely to ignore that intent. A further complication is the fact that the conference report language specifies a date beyond the FY 2002 appropriations period, which expires on September 30, 2002. In other words, the conference report is directing a change for FY 2003.

Anticipating this intended reduction in the allowable federal share for New Starts projects, the MBTA's financial plan for Phase III of the Silver Line has assumed a 60 percent federal New Starts share. With a total estimated cost of $951.9 million in year of expenditure dollars,[3] the requested New Starts share is $571.1 million. The source of the local share of the project, totaling $380.8 million, will be provided through bond proceeds.

It is acknowledged that a 60 percent federal share for Phase III is lower than what was previously assumed in the Boston metropolitan region's long-range plan. However, a financial plan has been developed by the MBTA and submitted to FTA that indicates the feasibility of this lower funding share, which is now a federal intent for New Starts

[3] These total costs incorporate highly conservative assumptions, including, per FTA guidance on projects at the level of design of the Silver Line Phase III, a 50 percent contingency on total construction costs.

projects. This lower federal funding share provides the Silver Line Phase III project with a competitive advantage compared to projects either currently in or seeking to enter the New Starts pipeline. For example, as reported in FTA's FY 2003 New Starts Report to Congress, of the 31 non-exempt projects in the New Starts pipeline for FY 2003 that are currently in the preliminary engineering phase (as the Silver Line Phase III will be upon FTA approval), 10 of those projects or roughly one-third contain New Starts funding share assumptions in excess of 60 percent. These projects will need to make significant revisions to their financial plans and verify financial feasibility at the lower New Starts share; the Silver Line Phase III project has already accounted for this lower share.

The intended change in the federal New Starts share combined with anticipated reauthorization debates over the level of funding provided to the New Starts program highlight the continued need to build strong support for the Silver Line Phase III project. This support is critical to developing a nationally competitive project and to help secure future New Starts funding in the future.

6.4 Schedule

As described in more detail in Section 5.0, conceptual engineering has been completed on a realignment for Silver Line Phase III as well as an extension of the tunnel to provide an operational connection with Washington Street service at New England Medical Center. Preliminary engineering on this section of the Silver Line will commence following approval by FTA for Phase III to enter the New Starts pipeline. This approval, which has now been received, was needed prior to initiation of preliminary engineering to maintain the project's eligibility for receipt of New Starts funding, through a FFGA with FTA, in the future.

With FTA approval to initiate preliminary engineering, the MBTA is now able to solicit for consultant services to undertake additional engineering, as well as an assessment of the environmental impacts of the realignment and extension of the Phase III tunnel to New England Medical Center; these impacts are anticipated to be insignificant, as described in Section 5.4.4. The results of this engineering (preliminary engineering and final design) and analysis will be documented in an EA estimated to be expected to be completed in 2004, with construction of the project begun in 2005. A six-year construction schedule is anticipated, with opening of revenue service on Phase III of the Silver Line in 2010.

7.0 Response to Comments

7.1 Introduction

This section provides responses to comments received on the following three documents:

- *South Boston Piers Area Transitway Peer Review Final Report*, February 2001.
- *Annual Update Pursuant to Massachusetts General Laws, Chapter 30, Section 61, Impact on the Natural Environment*, South Boston Piers Transitway (EOEA No. 6826) and Washington Street/Silver Line Transit Service and Roadway Improvements (EOEA No. 11707), MBTA, April 2001.
- *Environmental Assessment/Notice of Project Change, Silver Line Maintenance Facility on Southampton Street*, MBTA, April 2001.

The section is organized according to document, in the order listed above. Each letter received on the documents is printed first, followed by the excerpted comments and responses. Comment letters and responses are presented alphabetically, with the exception of certificates or letters from the Executive Office of Environmental Affairs which are presented first. Excerpted comments are annotated on the letters, using the following numbering convention:

- Comments on the Peer Review Final Report are numbered using the prefix "PR."
- Comments on the maintenance facility NPC/EA are numbered using the prefix "NPC."
- Comments on the April 2001 Annual Update are numbered using the prefix "AU."

7.2 Comment Letters

Following is a list of comment letters received on the three documents and responded to in this section.

Peer Review Final Report

Commonwealth of Massachusetts, Executive Office of Environmental Affairs
March 21, 2001

Artery Business Committee
March 1, 2001

Conservation Law Foundation
March 2, 2001

Conservation Law Foundation and South Boston Environmental Health Watch
February 22, 2001

Massachusetts Port Authority
March 2, 2001

Massachusetts Sierra Club
March 2, 2001

Francis "Mickey" Roache, Boston City Councillor At-Large
February 28, 2001

Karen Wepsic
February 28, 2001

Maintenance Facility NPC/EA

Commonwealth of Massachusetts, Executive Office of Environmental Affairs
May 25, 2001

Albany LLC
May 15, 2001

Boston Redevelopment Authority
May 21, 2001

Boston Transportation Department
May 15, 2001

Boston Water and Sewer Commission
May 15, 2001

City of Boston, The Environment Department
May 18, 2001

City of Boston, Office of the Mayor, Thomas M. Menino
May 16, 2001

Clean Buses for Boston/Federation for Public Transit
May 15, 2001

Commonwealth of Massachusetts, Department of Environmental Protection
May 15, 2001

Commonwealth of Massachusetts, Division of Marine Fisheries
May 15, 2001

Dudley Street Neighborhood Initiative
May 8, 2001

Lloyd Fillion
April 24, 2001

Lloyd Fillion
May 14, 2001

GPC/O'Neill and Associates
May 15, 2001

Greater Boston Food Bank
May 15, 2001

Massachusetts Sierra Club
April 27, 2001

Massachusetts Sierra Club
May 12, 2001

Newmarket Business Association
May 6, 2001

Samuels & Associates
May 15, 2001

Slade Gorton & Co., Inc.
May 15, 2001

Solutek
May 10, 2001

South Boston Seaport TMA
May 15, 2001

Waldo Brothers
May 15, 2001

Karen Wepsic
May 15, 2001

April 2001 Annual Update

Artery Business Committee
May 21, 2001

City of Boston, The Environment Department
May 15, 2001

Commonwealth of Massachusetts, Department of Environmental Protection
May 15, 2001

Commonwealth of Massachusetts, Division of Marine Fisheries
May 15, 2001

Massachusetts Sierra Club
May 21, 2001

South Boston Environmental Health Watch
May 21, 2001

South Boston Environmental Health Watch and Washington Street Corridor Coalition
May 24, 2001

Karen Wepsic
May 15, 2001

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114-2119

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March 2, 2001

Andrew Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Dear Mr. Brennan

I am pleased to have received the South Boston Piers Area Transitway Peer Review Panel Final Report. The Panel should be commended for its thorough and prompt review of the MBTA's vehicle selection for the South Boston Transitway section of the Silver Line. I thank the MBTA for its active support of this process. The Panel has helped build confidence in the MBTA's vehicle choice and will allow the MBTA to move forward with the full implementation of the Silver Line service.

Based on the Panel's findings and recommendation, I am confident that these buses can be operated and maintained in a manner to ensure emissions will be low and remain low over time. I am pleased by the MBTA's commitment to incorporate diesel particulate filters, the use of low sulfur diesel fuel, and Selective Catalytic Reduction Technology (SCRT), if it performs as expected. These measures will reduce PM and NOx emissions to levels well below future EPA standards. I am concerned, however, about the excess NOx emissions that will be produced by these vehicles in the first year of operations. To address this concern, I expect the MBTA will provide emissions offsets in the South Boston area. I encourage the MBTA to explore opportunities such as the reduction of emissions from the shuttles providing MBTA water transportation services in South Boston, or from local school buses or from commuter rail trains operating out of South Station. I expect a firm commitment to a project will be provided in the MBTA's revised Section 61 Finding for this project and will be described in the 2002 Annual Update. **PR1** **PR2**

The Panel also made a number of recommendations regarding vehicle maintenance and Silver Line operations. I expect the MBTA will incorporate these recommendations into its Annual Report and revise its Section 61 findings accordingly. I also applaud the MBTA's **PR3**

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proposal to create stakeholders group, as part of its ongoing public participation process for the project. The creation of this group should help support MBTA efforts to implement the Silver Line and provide confidence to the community regarding long-term emissions.

Thank you for your consideration of these comments.

Very truly yours,

Jay Wickersham
MEPA Director

Commonwealth of Massachusetts Executive Office of Environmental Affairs

Comment PR1: I am concerned ... about the excess NOx emissions that will be produced by these vehicles in the first year of operations. To address this concern, I expect the MBTA will provide emissions offsets in the South Boston area. I encourage the MBTA to explore opportunities such as the reduction of emissions from the shuttles providing MBTA water transportation services in South Boston, or from local school buses or from commuter rail trains operating out of South Station.

Response: The MBTA has developed extensive programs to reduce the emissions of its buses, and is now investigating ways to reduce the emissions of its locomotives. Given that the Silver Line is a SIP commitment found at 310 CMR 7.36, a Central Artery commitment, as well as a commitment of the ACO between The Department of Environmental Protection (DEP) and the Executive Office of Environmental Affairs (EOEA), we do not believe it is reasonable to expect further mitigation for the very small NOx emissions resulting from this project as documented in Section 4.0. It is not appropriate for the MBTA to mitigate for its mitigation.

Comment PR2: I expect a firm commitment to a project will be provided in the MBTA's revised Section 61 Finding for this project and will be described in the 2002 Annual Update.

Response: The MBTA will be developing a revised Section 61 finding for the entire Silver Line project. The Section 61 Finding will include commitments to all of the mitigation which is part of this project. As described in Section 1.3, the MBTA will develop the Section 61 Finding after the completion of any environmental review of Phase III of the Silver Line, so that any mitigation needs associated with the entire project can be incorporated into the final agreement.

Comment PR3: The Panel also made a number of recommendations regarding vehicle maintenance and Silver Line operations. I expect the MBTA will incorporate these recommendations into its Annual Report and revise its Section 61 findings accordingly.

Response:

The MBTA has developed a vehicle maintenance plan which will be fully expanded when the vehicles arrive on the property. This vehicle maintenance plan is described in Section 3.0 and will be incorporated into the project's final Section 61 Finding.

ABC
ARTERY BUSINESS COMMITTEE

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Boston, Massachusetts 02108-3114
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MAR
By

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March 1, 2001

Mr. Andrew Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Dear Mr. Brennan,

I am writing in response to the *South Boston Piers Area Transitway Peer Review Panel Final Report* that was recently distributed to the Artery Business Committee. We want to thank the MBTA for sharing this information with us, and appreciate the opportunity to comment.

As you know, the ABC and its members in the South Boston Waterfront have a great interest in the construction and completion of the MBTA's Silver Line. The business communities' goal is to ensure that the service meets and exceeds the demand that is forecasted in the growing Seaport area. Therefore, we are extremely pleased to see that the panel has agreed that any delay in 2003 opening of the Transitway is unacceptable, and that the MBTA should continue with the plans to procure the Neoplan buses. The ABC commends the Review Panel on its thorough examination of alternatives that has led to the confirmation of the MBTA's choice of the Neoplan vehicle as the best solution given the physical constraints, need for capacity, and lack of technology in the marketplace at this time.

Regarding the review panel's recommendations, the ABC would like offer the following comments:

Maintenance and Testing- The ABC supports the panel's recommendations to contractually ensure vehicle reliability and to create a specific maintenance and testing program for these vehicles. It is in everyone's best interest that these vehicles be as environmentally sound as possible and that they continue to be made cleaner as further pollutant reduction systems become available. **PR4**

Stakeholders Group- The ABC is pleased to see that the Review Panel understands and supports the role that the community has in ensuring the Silver line and other demand management measures meet the long term transit capacity and demand for the area. The ABC has taken a leadership role in this regard by forming a South Boston Waterfront Transportation Working Group. Made up of area businesses, developers, and public sector representatives, this group will be meeting on a regular basis to look at the transportation challenges facing the area, and to develop to realize the vision of the South Boston Waterfront as a vibrant part of the City. **PR5**

Full Grade Separation of D Street Intersection- It is the belief of the ABC that the lack of a grade separation at D Street has the potential to make the proposed headways and capacity an impossibility, and will negatively impact travel time for riders. We are encouraged to see that the panel also recommends grade separation to ensure reliable service. The ABC encourages the MBTA and Massport to take the steps necessary to accomplish the short term goal of opening the line on time and with needed capacity for 2003, with the option for opening the tunnel under D street as needed in the future. **PR6**

Capacity and Operations- The ABC has reviewed the panel's observations and recommendations on the capacity and operations of the service. While the methodology and results seem reasonable, the ABC has some concerns regarding the stated 45-second headways and the lack of a clear operation plan that makes those headways feasible. We encourage the MBTA to work with Massport and others to create a realistic and current service and operations plan for the transitway. PR7

Thank you for the opportunity to comment on the Peer Review Panel's final report. We welcome the opportunity to work with the MBTA in ensuring that the Silver Line attains its full service potential.

Sincerely,

Richard Dimino
President

cc: John Drew, World Trade Center

Artery Business Committee

Comment PR4: The ABC supports the panel's recommendations to contractually ensure vehicle reliability and to create a specific maintenance and testing program for these vehicles. It is in everyone's best interest that these vehicles be as environmental sound as possible and that they continue to be made cleaner as further pollutant reduction systems become available.

Response: All manufacturers providing equipment, systems, and consumables related to emissions control associated with the dual mode vehicle are by contract and industry practice joined into a partnership, directly and indirectly, with the MBTA. This partnership is based on warranty provisions (mechanical and emissions) and related service as well as required technical support derived from contractual commitments and driven by market conditions. Further, this partnership includes engine, after treatment, and fuel vendors as well as the vehicle manufacturer. The MBTA's proposed Emissions Assurance Program (EAP), presented in Section 3.6, incorporates these relationships and their regulatory, contractual, and risk management origins and implications. The model for this support has been developed by the MBTA through its recent series of implementation initiatives associated with the Series 50 Reliabilt Engine Program, fleet-wide deployment of Ultra Low Sulfur Diesel (ULSD) fuel, and installation of Diesel Particulate Filters (DPF). Experience accumulated through these initiatives will serve as an important basis for future decision-making by the MBTA with respect to dual mode vehicle emissions control-related products and services. The EAP is designed to provide a series of safeguards and, ultimately, an operating fail-safe mechanism to ensure the lowest possible level of emissions allowable by the selected technologies for the dual mode vehicle Emissions Control Plan

Future Annual Updates will include product profile information related to selected monitoring/testing technologies. Currently identified onboard diagnostic systems for the vehicle are discussed in Section 3.6.

Comment PR5: The ABC is pleased to see that the Review Panel understands and supports the role that the community has in ensuring the Silver line and other demand management measures meet the long-term transit capacity and demand for the area.

Response: Comment noted.

Comment PR6: It is the belief of the ABC that the lack of a grade separation at D Street has the potential to make the proposed headways and capacity an impossibility, and will negatively impact travel time for riders. ... The ABC encourages the MBTA and Massport to take the steps necessary to accomplish the short-term goal of opening the line on time and with needed capacity for 2003, with the option for opening the tunnel under D Street as needed in the future.

Response: The MBTA, jointly with Massport and the ABC, have studied the need for a grade separation at D Street. The study, completed by Massport, demonstrates that the capacity of the Silver Line Phase II is not measurably enhanced by a grade separation. Further, grade separation would cause delay to the schedules of both the Silver Line Phase II and CA/T projects, as well as an increase in project costs.

Despite the finding of the Massport study, the MBTA has begun to address construction issues now that leave open the possibility of a grade separation in the future. These include issues that can also expedite a future grade separation, such as the strategic relocation of utilities.

Comment PR7: [T]he ABC has come concerns regarding the stated 45-second headways and the lack of a clear operation plan that makes those headways feasible. We encourage the MBTA to work with Massport and others to create a realistic and current service and operations plan for the transitway.

Response: As described in Section 1.4, a South Boston Waterfront Transit Advisory Committee has been convened to provide input to, among other matters, the initial service plan for the Silver Line. Both the ABC and Massport are participants on that committee. A preliminary operating plan for discussion is provided in Section 2.0.

CLF Conservation Law Foundation

March 2, 2001

Andrew Brennan
Manager of Environmental Affairs, MBTA
10 Park Plaza, Room 6720
Boston, MA 02116-3974

Re: South Boston Piers Transitway Peer Review Panel Final Report

Dear Mr. Brennan,

The Conservation Law Foundation ("CLF") is happy to submit the following comments regarding the report of the Peer Review Panel examining the purchase of dual mode buses for the South Boston Piers Transitway (or as it is sometimes known these days, "Section A of the Silver Line.").

The three steps outlined in joint CLF/South Boston Environmental Health Watch comments: Implement Panel recommendations, start a community process about emissions testing and catenary extension and commence a broad public process about the "Silver Line" in general

I will only briefly reference the comments on this report which we made jointly with the South Boston Environmental Health Watch. A copy of those comments are attached. In those comments we thank the many people and institutions who made this process possible and thank them for their time. In this separate comments CLF would like to also thank our partners at the South Boston Environmental Health Watch: their tireless commitment to the health of their neighborhood and the city as a whole and their willingness to reach across traditional divides to work with us and with other community groups from disparate neighborhoods represents citizen activism at its best.

CLF stands behind the substance of those comments, we remain convinced that the "baseline" outcome of the Panel Report should be immediate adoption of the Panel's mild and reasonable recommendations regarding slight changes in the Neoplan buses and the contract governing their procurement and maintenance. **PR8**

CLF also firmly believes that the time has come to "kick off" the medium and longer range processes described in our earlier joint comment letter. There is an urgent and immediate need for an open and public dialogue about the maintenance and monitoring of emissions from the Neoplan buses and related issues like extension of catenary. There is also a pressing need to commence the longer range planning process around the completion of the "Silver Line." The MBTA, EOEA and other interested parties should convene a process that will bring to the table the neighborhood residents, business interests, downtown property owners, real estate developers, environmental advocates and many others who have a stake in the nature, mode, timing and design of this transit project. **PR9** **PR10**

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Recognizing that the Panel only looked at very short term issues regarding the actual vehicle procurement

While it is important to not overly minimize or understate the work of the Panel it is also equally important to be realistic and honest about the time frame that they were analyzing and came to conclusions about. The Panel concluded that the initial purchase of the first set of Neoplan buses by the MBTA was a "reasonable choice". They did not, however, conclude that any more of these buses (or an altered and presumably more advanced version) will be the right vehicle to purchase beyond this point. The Panel quite firmly left the door open to a retrofit of the Transitway to rail, while "bookmarking" the important questions about how a retrofitted rail system could provide service to Logan Airport. It is certainly possible that such service could still be provided- perhaps through a system of shared bus and rail usage of the Transitway tunnel: the Panel's report did not say "no" to such an alternative, it simply detailed the challenges any alternative would face. PR11

The Panel's less obvious recommendations should not be ignored

PR12

The Panel made some important observations about the need for better air quality monitoring data for the entire "Silver Line corridor"- this observation should be fully embraced and the recommendation that such monitoring be put in place should be implemented. Such monitoring could well be undertaken as a joint effort by the transportation and environmental agencies of the Commonwealth in coordination with the City of Boston and, perhaps, the EPA. There may also be a significant opportunity to bring one of the major academic institutions into such an effort.

PR13

The Panel also expressed strong concerns about the need for grade separation at D Street- as the current Transitway plans require every vehicle entering or leaving the tunnel to cross the traffic traversing that busy road at a traffic light, a crossing that could undermine the entire operational plan for the Transitway. Addressing that issue should be front and center in the coming months.

Ensuring that Massport is well integrated into all planning and operations, that sufficient service is provided to Logan Airport and that Massport's real estate development program truly supports and works with the Transitway and its vehicles

PR14

The Panel made note of a number of disturbing disjunctions between the plans and intentions of Massport regarding the Transitway and the operation of the Neoplan buses and those of the MBTA. The routing of these vehicles at Logan Airport was highlighted by the Panel as an area that requires immediate attention. The Panel also raised serious concerns about whether a sufficient number of vehicles were being allocated to the Logan service and whether all the vehicles should have a the "perimeter seating" scheme that works best on vehicles serving the Airport. All of these concerns should be addressed as soon as possible.

PR15

The nature of Massport's support for effective implementation of this project was called into question during the same time period that the Panel was meeting and preparing its report when Massport stated that it did not intend to place "signal priority" equipment in the streets of "Commonwealth Flats"- the very area where the Transitway empties out on to city streets. This statement, in Massport's Final Environmental Impact Report for Commonwealth Flats, raises serious concerns about whether the buses will be able to maintain their intended schedules. The

Panel Report (at page 56) notes that such signal prioritization is one of the "[t]hree additional elements needed to ensure an effective operation . . . "

In the interest of effective Transitway operations and (as noted by the Panel Report) to give life to the Central Artery ACO between EOEA and EOTC there needs to be an immediate effort to plan and build signal prioritization on all aspects of the "Silver Line" corridor. PR16

Offsetting the lack of SCR emissions controls in many of the buses during the initial period of operation

The MBTA has noted that only two of the Transitway vehicles with full emissions controls in place. The rest will be retrofitted with NOx reducing "SCR" technology later. Besides making an iron clad guarantee that this retrofitting will take place, the MBTA should take steps to offset this increased pollution, perhaps by beginning the process of addressing the tremendous and practically uncontrolled emissions from commuter rail locomotives and commuter ferries. The opportunities for significantly reducing pollution from theses sources through the application of off-the-shelf technology is tremendous. PR17

The need for open and clear public dialogue

CLF started its work in the area of urban mass transit in the late 1970's by calling for open public disclosure and analysis of system changes, operations and fare policy. We undertook our litigation in Federal Court in the late 1980's to ensure that the planning for the Central Artery project would include adequate environmental review, planning for transit system improvements and mitigation for this massive highway construction effort. Those efforts have continued to this day and led us to our efforts to ensure that projects like the Transitway and the larger "Silver Line" are as good as they should be and are truly planned, created, implemented and operated in the sunlight, in full view of the stakeholders who pay for the system, reap its benefits and bear its burdens.

Fundamental values of democracy, environmental protection and social justice, as well as the realpolitik needed to build political support demand that the twin processes discussed above are broad based- drawing on many stakeholders from many communities, given adequate support and are truly open and public. These processes, the shorter term examination of emissions monitoring and catenary extension and the longer term process addressing the larger "Silver Line" should not wait. They should be called into existence now and fully empowered to address the critical questions which need to be answered about the shape, mode and nature of this transit project. PR18

Sincerely,

Seth Kaplan,
Staff Attorney

Cc: Bob Durand (EOEA # 6826)
Lowell Richards, Massport
Nigel H.M. Wilson, MIT

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Conservation Law Foundation

Comment PR8: [W]e remain convinced that the "baseline" outcome of the Panel Report should be immediate adoption of the Panel's mild and reasonable recommendations regarding slight changes in the Neoplan buses and the contract governing their procurement and maintenance.

Response: The MBTA has developed a multilateral Emissions Assurance Program (EAP) for the Neoplan dual mode vehicle, as discussed above in the response to Comment PR4 and presented in Section 3.6. The EAP reflects a pragmatic and feasible combination of the Peer Review Panel's recommendations as they relate to emission control.

Comment PR9: There is an urgent and immediate need for an open and public dialogue about the maintenance and monitoring of emissions from the Neoplan buses and related issues like extension of catenary.

Response: The maintenance and monitoring of emissions will be discussed openly and publicly. See the response to Comment PR4. In addition, Section 3.0 of this Annual Update provides more details on the monitoring of emissions. Future Annual Updates will provide additional information.

Comment PR10: There is also a pressing need to commence the longer-range planning process around the completion of the "Silver Line." The MBTA, EOEA and other interested parties should convene a process that will bring to the table the neighborhood residents, business interests, downtown property owners, real estate developers, environmental advocates and many others who have a stake in the nature, mode, timing and design of this transit project.

Response: The MBTA has established the South Boston Waterfront Transit Advisory Committee (SBWTAC) for the Silver Line. This group, whose mission and agenda are described in Section 1.4, first met in December 2001 and now meet monthly. While the SBWTAC has initially focused on the South Boston phase of the Silver Line, the group will be expanded in the future to encompass Silver Line Phase III activities, such as project planning, vehicle type, possible conversion to rail, etc.

Comment PR11: The Panel concluded that the initial purchase of the first set of Neoplan buses by the MBTA was a "reasonable choice." They did not, however, conclude that any more of these buses (or an altered and presumably more advanced version) will be the right vehicle to purchase beyond this point. The Panel quite firmly left the door open to a retrofit of the Transitway to rail, while "bookmarking" the important questions of how such a retrofitted rail system could provide service to Logan Airport.

Response: The MBTA has repeatedly stated that the full analysis of Phase III of the Silver Line will examine the feasibility, cost, and benefits of converting the Silver Line to a rail system.

Comment PR12: The Panel made some important observations about the need for better air quality monitoring data for the entire "Silver Line corridor" - this observation should be fully embraced and the recommendation that such monitoring be put in place should be implemented. Such monitoring could well be undertaken as a joint effort by the transportation and environmental agencies of the Commonwealth in coordination with the City of Boston and, perhaps, the EPA. There may also be a significant opportunity to bring one of the major academic institutions into such an effort.

Response: The MBTA has developed and presents a multilateral Emissions Assurance Program (EAP) for the Neoplan dual mode vehicle. This program's framework, which is described in the response to Comment PR4 and presented in Section 3.6, reflects a pragmatic and feasible combination of the Peer Review Panel's recommendations as they relate to emission control. With respect to community-based air quality monitoring, the MBTA will investigate existing programs and related assets dedicated to this purpose.

Comment PR13: The Panel also expressed strong concerns about the need for grade separation at D Street - as the current Transitway plans require every vehicle entering or leaving the tunnel to cross the traffic traversing the busy road at a traffic light, a crossing that could undermine the entire operational plan for the Transitway. Addressing that issue should be front and center in the coming months.

Response: See the response to Comment PR6.

Comment PR14: The Panel made note of a number of disturbing disjunctions between the plans and intentions of Massport regarding the Transitway and the operation of the Neoplan buses and those of the MBTA. The routing of these vehicles at Logan Airport was highlighted by the Panel as an area that requires immediate attention. The Panel also raised serious concerns about whether a

Response: To date and for the foreseeable future (12 to 18 months), the SCRT™ system is not commercially available, as it is still in the pilot demonstration phase of its commercial development in the U.S. Furthermore, the SCRT™ has not been submitted for EPA verification under its Environmental Technology Verification Program (ETVP).

Currently, the EPA is developing product-testing protocols for Selective Catalytic Reduction (SCR) technology for mobile heavy-duty engine retrofit application. EPA verification is crucial to risk management and regulatory compliance issues associated with retrofit applications of diesel emissions control technologies. At this point, the inherent risk associated with both the SCRT™ system and SCR single unit products does not support prudent and sound decision-making for full deployment of such technology in the dual mode vehicle fleet. The subject of SCR technology and its application to the dual mode vehicle is fully covered in Section 3.0 of the Annual Update. This includes the baseline parameters for SCR deployment promulgated by the MBTA as well as a status of mobile SCR projects throughout the U.S.

Comment PR18: Fundamental values of democracy, environmental protection and social justice, as well as the realpolitik needed to build political support demand that ... [public] processes ... are broad-based - drawing on the many stakeholders from many communities, given adequate support and are truly open and public. These processes, the shorter-term examination of emissions monitoring and catenary extension and the longer-term process addressing the larger "Silver Line" should not wait. They should be called into existence now and fully empowered to address the critical questions which need to be answered about the shape, mode and nature of this transit project.

Response: The MBTA has established the South Boston Waterfront Transit Advisory Committee (SBWTAC), described in Section 1.4. The SBWTAC will be addressing all of the relevant and important matters on the Silver Line.

The SBWTAC is expected to support both near-term and longer-term issues associated with Silver Line implementation. The priority at this time are the near-term issues, particularly an operating plan for the Silver Line in South Boston. Longer-term issues will be addressed by an expanded SBWTAC at a later date.

CLF

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February 22, 2001

Mr. Robert Durand
Secretary of Environmental Affairs
251 Causeway Street, 9th floor
MEPA Office, EOEA # 6826
Boston MA 02114

Re: South Boston Piers Transitway Vehicle Peer Review

Dear Secretary Durand,

The Conservation Law Foundation ("CLF"), the South Boston Environmental Health Watch (the "Health Watch") have prepared the following brief letter for inclusion in the February 2001 "Silver Line Annual Update" submitted to your office by the Massachusetts Bay Transportation Authority ("MBTA").

We need to begin by thanking a number of institutions and individuals. We thank the MBTA for engaging in this entire process in a cooperative manner, providing resources to the Peer Review Panel and agreeing to the inclusion of this letter in the Annual Update. In particular, Deputy General Manager Michael Mulhern and Chief Operating Office Ann Herzenberg have been front and center in these cooperative efforts. The members of the panel, all of whom took time out from their own very busy lives and work to participate in this process, deserve praise and recognition. Professor Nigel Wilson and Scott Smith of the Volpe Center truly went above and beyond in providing the leadership and "heavy lifting" needed to synthesize a large body of data in a very short time. The Massport, BRA and EOTC staff who provided information to the panel should also be recognized.

It is the intention of both CLF and the Health Watch to submit full (and probably separate) comments on both the Panel Report and the entire Annual Update. In addition to our comments set forth below it is likely that those comments will address the immediate and pressing questions of grade separation at D Street and the need for signal priority implementation in the South Boston Waterfront. We will leave those questions aside here and outline three fundamental lessons of the

Panel Report, the MEPA process to this point and our collective experiences and the "next steps" that we see ahead on these three fronts:

THE "TECHNICAL" RECOMMENDATIONS OF THE PANEL SHOULD BE IMMEDIATELY EMBRACED BY THE MBTA AND INCORPORATED INTO THE TRANSITWAY VEHICLE PROGRAM

Certain recommendations of the Panel require immediate action. These recommendations regarding the physical design and emissions hardware of the Transitway vehicles, most notably the inclusion of a "back pressure monitoring system" and sensors to detect a low level urea tank and "dosing unit problems", should be fully adopted by the MBTA and incorporated into the design of the Transitway vehicles. Similarly, the MBTA should make the recommended commitment to retrofit all the Neoplan buses with SCR no later than the end of 2004 and make the recommended changes to its contract with Neoplan regarding maintenance in general and "ammonia slip" in particular. We make particular reference to the recommendations on pages 60-62 of the report with regard to these immediate adjustments needed to the procurement. **PR19**

AN IMMEDIATE PUBLIC PROCESS IS NEEDED TO ADDRESS ISSUES OF CONTINUING AND IMMEDIATE CONCERN: EMISSIONS MONITORING AND MAINTENANCE AND EXTENSION OF CATENARY

We strongly support the recommendation of the panel that a strict and ongoing program of monitoring, inspection and maintenance of the emissions control technology on the Neoplan buses be developed and implemented. It is important that the maintenance plan of the MBTA, at a minimum, provide all the service recommended by the manufacturer. We also recommend that distance traveled, not just time periods, be used to schedule maintenance. We also support the panel's recommendation that there be further study and dialogue regarding further extension of catenary outside the Transitway tunnel. We believe that the best way to move these conversations forward, as well as planning of additional routes stretching into the South Boston residential neighborhood (whether on catenary or not), would be to initiate a consultative process bringing together the MBTA, representatives of the Health Watch and other community organizations as well as other representatives of neighborhood and citywide interests. If such a process was launched during the next two months it could formulate an emissions monitoring and maintenance **PR20** **PR21**

program which would be then included in the 2002 Silver Line Annual Update. This process might also serve as a forum for presentations on coordination between the MBTA and Massport.

THE LARGER SILVER LINE DESIGN, TECHNOLOGY CHOICE AND CITYWIDE IMPLEMENTATION QUESTIONS

The panel report does not attempt to answer any of the questions regarding what vehicles or technology should be procured for use on the Transitway (or anywhere else on the "Silver Line") beyond the initial purchase of Neoplan buses. Indeed, the panel specifically cautions against an assumption that five years from now that these same buses will be the appropriate choice. PR22

What is needed is the immediate initiation of a broad public process to address the question of the shape, nature and mode of the final implementation of the "Silver Line". This process should bring together the communities in the Washington Street Corridor (most notably Roxbury and the South End), South Boston, Chinatown and Downtown. By bringing together a broad swath of real estate developers, community leaders and activists and the many interests with stakes, offices and homes in these communities a true consensus vision can be forged and a political coalition created to support the implementation of that vision.

Such a process would have to recognize technological realities. For example, any vision for a rail based "Silver Line" that involved integration into the existing Green Line would probably require technological improvements to the Green Line itself to expand its capacity. But it should also recognize the possibilities that technology might provide solutions, like the possibility that a retrofitted converted Transitway tunnel might carry both trolleys (traveling perhaps from Dudley Station) as well as buses bound for the Ted Williams Tunnel. The "busway" tunnel in Pittsburgh that is traversed by both trains and buses is a possible model here.

We look forward to the exciting possibilities that lie ahead as we, the MBTA and the many other interested communities and parties continue to address these questions and processes.

Sincerely,

Seth Kaplan, Staff Attorney
Conservation Law Foundation

Nina Hayes, Frances "Lucky" Devlin & Alphonsus Roche
South Boston Environmental Health Watch

Conservation Law Foundation and South Boston Environmental Health Watch

Comment PR19: Certain recommendations of the Panel require immediate action. These recommendations regarding the physical design and emissions hardware of the Transitway vehicles, most notably the inclusion of a "back pressure monitoring system" and sensors to detect a low level urea tank and "dosing unit problems," should be fully adopted by the MBTA and incorporated into the design of the Transitway vehicles. Similarly, the MBTA should make the recommended commitment to retrofit all the Neoplan buses with SCR no later than the end of 2004 and make the recommended changes to its contract with Neoplan regarding maintenance in general and "ammonia slip" in particular. We make particular reference to the recommendations on pages 60-62 of the report with regard to these immediate adjustments to the procurement.

Response: Section 3.0 of the Annual Update defines the extent of electronic control management (ECM) systems to be integrated with the engine, diesel particulate filter, and pilot selective catalytic reduction technologies in the dual mode vehicle.

ECM is inherent to the triad of technology (i.e., engine, aftertreatment, and fuel) and embedded in each of the applicable emissions control components of the dual mode vehicle. These components are integrated as an overall operating system designed to assure the lowest possible emissions derived from selected control technologies. It is the ECM strategy that provides the vehicle's operating systems (i.e., emissions control-critical) with a complete command, control, communications, and information platform.

See the response to Comment PR16 for a discussion of SCR technology and its application to the dual mode vehicle.

Comment PR20: We strongly support the recommendation of the panel that a strict and ongoing program of monitoring, inspection and maintenance of the emissions control technology on the Neoplan buses be developed and implemented. It is important that the maintenance

plan of the MBTA, at a minimum, provide all the service recommended by the manufacturer. We also recommend that distance traveled, not just time periods, be used to schedule maintenance.

Response: See the response to Comment PR4.

Comment PR21: We also support the panel's recommendation that there be further study and dialogue regarding further extension of catenary outside the Transitway tunnel. We believe the best way to move these conversations forward, as well as planning of additional routes stretching into the South Boston residential neighborhood (whether on catenary or not), would be to initiate a consultative process bringing together the MBTA, representatives of the Health Watch and other community organizations as well as other representatives of neighborhood and city-wide interests.

Response: The MBTA has committed that, as part of the South Boston Waterfront Transit Advisory Committee, future expansion of the catenary will be examined, either on the planned routes or on other South Boston neighborhood routes. This planning will be done with full involvement of the South Boston neighborhood, which thus far, has expressed ambivalent views on the issue of catenary on neighborhood streets.

Comment PR22: The panel report does not attempt to answer any of the questions regarding what vehicles or technology should be procured for use on the Transitway (or anywhere else on the "Silver Line") beyond the initial purchase of Neoplan buses. Indeed, the panel specifically cautions against an assumption that five years from now that these same buses will be the appropriate choice.

What is needed is the immediate initiation of a broad public process to address the question of the shape, nature and mode of the final implementation of the "Silver Line." This process should bring together the communities in the Washington Street Corridor (most notably Roxbury and the South End), South Boston, Chinatown and Dorchester. By bringing together a broad swath of real estate developers, community leaders and activists and the many interests with stakes, offices and homes in these communities a true consensus vision can be forged and a political coalition created to support the implementation of that vision.

Such process would have to recognize technological realities. For example, any vision for a rail-based "Silver Line" that involved integration into the existing Green Line would probably require technological improvements to the Green Line itself to expand capacity. But it should also recognize the possibilities that

technology might provide solutions, like the possibility that a retrofitted converted Transitway tunnel might carry both trolleys (traveling perhaps from Dudley Station) as well as buses bound for the Ted Williams Tunnel. The "busway" tunnel in Pittsburgh that is traversed by both trains and buses is a possible model here.

Response: See the response to Comment PR10.

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Mark E. Robinson
Chairman

Virginia Buckingham
Executive Director and CEO

RECEIVED
MAR 27 2001
By

March 2, 2001

Mr. Andrew Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Dear Mr. Brennan:

The Massachusetts Port Authority (Massport) has received a copy of the Silver Line Transitway Vehicle Peer Review Report. We appreciate the opportunity to comment.

We support many of the study's recommendations, especially the recommendation that the purchase of the 32 Neoplan dual mode, articulated buses move forward expeditiously. We also support the proposed goal of achieving a peak-hour transit mode split in the order of 55 – 60%. However, there are a few issues in the report of particular concern to us.

First, the study scope expanded significantly beyond that discussed at the MEPA public review meeting. In particular, the study recalculated the demand for Massport's Airport Intermodal Transit Connector (AITC) service from South Station to Logan Airport without input from Massport. The Authority had earlier studied AITC demand. This demand is documented in the AITC Environmental Assessment, January 1998; see section 3.2, *Analysis of Future Traffic Conditions*. The peer review panel's position with respect to future ridership is based solely on the qualitative assumptions presented on page 46 of the report. In contrast, Massport's AITC ridership forecasts are based on a rigorous travel demand modeling approach. Consequently, we have a high degree of confidence in our ridership estimates. **PR23**

Massport's estimate of South Station to Logan 2010 peak-hour, peak direction demand is one-quarter to one-third of that in the Peer Review's estimate. We would be pleased if AITC's mode share were to be as high as the study projects; however, we do not wish to create unreasonable expectations in anyone's mind. AITC is an important part of Massport's high occupancy vehicle (HOV) strategy for accessing Logan Airport. Massport will aggressively market this service and will monitor its performance. We will be happy to share our AITC mode share data with the MBTA.

Second, the peer review report states:

> To ensure more reliable service, we recommend full grade separation of the D Street intersection (with the Silver Line) ....' (Executive Summary, page 8)

Such a project would be very expensive, and may or may not be justified. At the South Boston Transportation Summit convened last fall, various participants raised a concern that the at-grade crossing of the Silver Line at D Street would limit system capacity. Within the next month Massport will start an analysis of Silver Line capacity and the probable effect of grade separation on capacity. Per Massport's recent Commonwealth Flats Development Area FEIR certificate, the Executive Office of Environmental Affairs (EOEA) recommends: **PR24**

> Following on the results on the first phase study, a second phase, best led by EOTC (the Executive Office of Transportation and Construction) or the MBTA (Massachusetts Bay Transportation Authority) would then study the constructability and potential costs of a D Street grade separation, and analyze the costs and benefits of implementing the grade separation in the near-term and long-term.

We believe that this is a prudent way to proceed, and we comment that the peer review report concludes prematurely, and without consideration of the full range of factors, that the grade separation is recommended.

Additionally, the report states that

> ... major issues remain to be satisfactorily resolved. These issues include single loop versus double loop through the airport terminals..." (page 8). **PR25**

The height of the dual mode buses precludes a double loop route through the airport. For the existing roadway configuration at Logan Airport, the double loop route increases travel times that result in increased operating costs, and results in passengers who are confused by the separate drop off and pick up loops. Later the report states:

> The new AITC service may draw from some of the existing non-subway services, such as the Braintree Logan Express" (page 46) **PR26**

We do not believe that the AITC service will compete with the Braintree Logan Express because they have very different operating characteristics and fares: the AITC is a transit service while the Logan Express is a premium line-haul express motorcoach service

Again, we thank you for the opportunity to comment on this important document. We continue to be committed to working closely and cooperatively with the MBTA, EOTC, EOEA, the City and other affected interests to address South Boston's transportation issues.

Sincerely,

Lowell L. Richards, III
Chief Development Officer

cc: N. Codd/BTD, A. Glynn/EOTC, M. Mulhern/MBTA, J. Wickersham/EOEA

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Massachusetts Port Authority

Comment PR23: [T]he [Peer Review] study scope expanded significantly beyond that discussed at the MEPA public review meeting. In particular, the study recalculated the demand for Massport's Airport Intermodal Transit Connector (AITC) service from South Station to Logan Airport without input from Massport. The Authority had earlier studied AITC demand ... [and] have a high degree of confidence in our ridership estimates.

Massport's estimate of South Station to Logan 2010 peak hour, peak direction demand is one-quarter to one-third of that in the Peer Review's estimate.

Response: Comment noted.

Comment PR24: [Grade separation of the D Street intersection] would be very expensive, and may or may not be justified. At the South Boston Transportation Summit convened [in fall 2000], various participants raised a concern that the at-grade crossing of the Silver Line at D Street would limit system capacity. Within the next month Massport will start an analysis of Silver Line capacity and the probable effect of grade separation on capacity. ... [W]e comment that the peer review report concludes prematurely, and without consideration of the full range of factors, that the grade separation is recommended.

Response: See the response to Comment PR6.

Comment PR25: [T]he report states that "... major issues remain to be satisfactorily resolved. These issues include single loop versus double loop through the airport terminals..."

The height of the dual mode buses precludes a double loop route through the airport. For the existing roadway configuration at Logan Airport, the double loop route increases travel times that result in increased operating costs, and results in passengers who are confused by the separate drop off and pick up loops.

Response: Comment noted.

Comment PR26: [T]he report states: "The new AITC service may draw from some of the existing non-subway services, such as the Braintree Logan Express."

We do not believe that the AITC service will compete with the Braintree Logan Express because they have very different operating characteristics and fares: the AITC is a transit service while the Logan Express is a premium line-haul express motorcoach service.

Response: Comment noted.

Massachusetts Sierra Club

Greater Boston Group

100 Boylston Street, Boston, MA 02116
(617) 423-5775 /Fax (617) 423-5858

March 2, 2001

Andrew D. Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Comments on the Silver Line Transitway Vehicle Selection Peer Review Report

"There is a dearth of long term air monitoring data available for the geographic areas spanned by the Silver Line." - Page 8 of the Peer Review Report.

"Stand in Boston's Chinatown and you are at the epicenter of Massachusetts' most environmentally-burdened city. It's here, in the midst of the Big Dig's dust and fumes from idling diesel buses that residents endure the largest concentration of industry and environmentally hazardous sites in the state, according to a new report. Downtown Boston wins the prize-by far-for the largest number of such sites, with nearly double the exposure to environmental risks per square mile than the closest polluted city, Chelsea. Other Boston neighborhoods and cities that hit the top 10 are Charlestown, South Boston, East Boston, Cambridge, Somerville, Roxbury, Allston/Brighton, and Watertown." - Page B1 of the Boston Globe of Tuesday, January 9, 2001.

It was the Club's hope that the Commonwealth, through its agencies and authorities, would utilize this peer review process to actively implement a vehicle selection process that erred on the side of caution when it came to the potential negative public health impacts of incremental diesel emissions on both the general population, as well as the residential populations of South Boston, East Boston, and Roxbury. **PR27**

Unfortunately, this hasn't happened. With all due respects to the Peer Review Panel, it doesn't appear that the fundamental issue of public health was adequately addressed. More credence appears to have been given to the relatively minor aesthetic impacts of the small amount of catenary necessary to implement trolley bus service.

The assertion that a change in vehicle technology, from dual mode to trolley bus, would significantly delay the implementation of the MBTA's Transitway service, as distinct from Massport's AITC service, remains questionable. **PR28**

Since Neoplan would still be the manufacturer, and the dual mode vehicles have yet to be ordered, what would cause such a significant delay, especially since both types of vehicles would be based on the same basic body design?

The issue of the potential extension of catenary into existing South Boston residential neighborhoods, such as City Point, needn't be addressed at this time. **PR29**

The extension of existing South Boston neighborhood surface bus routes, such as the *number 7-City Point-Otis & Summer Streets*, into the proposed Phase I Transitway would seem to offer little or nothing to existing or potential riders. It also may, given the limited layover space at South Station, negatively impact proposed Transitway Services.

Far more benefits would accrue in the short term for South Boston residents by the replacement of the existing surface bus fleet serving South Boston residential neighborhoods by new, low emission, forty foot buses and the implementation of a free bus to rail transfer policy.

This is an issue more associated with the planning for Phase II of the South Boston Piers Transitway Project. As part of Phase II(the extension of the Transitway to Boylston Station on the Green Line), an extension of Transitway services into the existing residential neighborhoods of South Boston could result in significant benefits to these neighborhoods.

If trolley bus services should be "considered in the future" for both the surface routes to BCEC and BMIP, then we see no reason why they can't be implemented immediately. **PR30**

The short extension of catenary necessary to implement such services is presented as a vastly complex endeavor, full of unknown and potentially insurmountable obstacles.
The issue of "*consensus*" is continually raised. Given the cumulative air quality impacts resulting from the introduction of a major diesel bus operation in an area already experiencing a public health crises, the necessity of having to achieve a complete consensus over such a minor item such as the small amount of catenary necessary to implement trolley bus operation seems totally unnecessary. Trolley bus operation into both the BCEC and BMIP should be presented as a *given*, along with a clear presentation of different design treatments and guidelines to minimize the visual impacts of overhead wire installations.

All Transitway vehicles should be operated in electric, not diesel mode, when deadheading to the maintenance/storage facility. **PR31**

Whether based at Cabot, or a new facility at Southampton Street, deadheading Transitway vehicles should be operated in full electric mode. This would require the extension of catenary along the Haul Road. Again, this is warranted given the positive public health impacts accruing from such a requirement.

Given the significant negative air quality impacts arising from the operation of such a large diesel bus operation, the Peer Review Panel didn't make a clear or compelling case for not operating trolley buses on Massport's AITC services. **PR32**

It's clear that Massport doesn't support trolley bus operation on its AITC service. However, the Peer Review Panel appears to accept, without sufficient analysis, the necessity of operating both AITC and Transitway services with the *same vehicle*; and the necessity of both services having to commence operations *concurrently*. Absent these constraints, a more thorough alternatives analysis could have been conducted.

Summary

A proven zero emissions vehicles exists for the South Boston Piers Transitway Project - the electric trolley bus. Nothing has been introduced into this discussion that justifies the substitution of dual mode technology for an all electric vehicle technology.. **PR33**

The Club supports the continuing evaluation of emerging alternative fuel technologies for transit use, but the Transitway is the wrong arena in which to try and prove the success of such technology.

We therefore call upon the Commonwealth, and its agencies and authorities, to err on the side of caution, especially in the light of ever increasing concerns over the health impacts of very small particulate material on urban populations, and reconsider its choice of vehicle for the South Boston Piers Transitway Project, Phase I.

Thank you,

John F. Deacon

Cc: Robert Durand, EOEA
Nigel Wilson, MIT

Massachusetts Sierra Club

Comment PR27: It was the Club's hope that the Commonwealth, through its agencies and authorities, would utilize this peer review process to actively implement a vehicle selection process that erred on the side of caution when it came to the potential negative public health impacts of incremental diesel emissions on both the general population, as well as the residential populations of South Boston, East Boston, and Roxbury.

Unfortunately, this hasn't happened. With all due respects to the Peer Review Panel, it doesn't appear that the fundamental issue of public health was adequately addressed. More credence appears to have been given to the relatively minor aesthetic impacts of the small amount of catenary necessary to implement trolley bus services.

Response: The MBTA believes that the Peer Review Panel worked diligently to understand and balance complicated and competing interests. The work done by the Peer Review has been very helpful to the MBTA, and the Authority thanks the members of the Peer Review for its effort.

Comment PR28: The assertion that a change in vehicle technology, from dual mode to trolley bus, would significantly delay the implementation of the MBTA's Transitway service, as distinct from Massport's AITC service, remains questionable.

Since Neoplan would still be the manufacturer, and the dual mode vehicles have yet to be ordered, what would cause such a significant delay, especially since both types of vehicles would be based on the same basic body design?

Response: The MBTA has not asserted that the change to trolley bus would delay the implementation of service. Instead, the MBTA has said it has not yet reached any community consensus on where, if anywhere, catenary should be strung so that the vehicle can operate in the electric mode. This community process will occur through the South Boston Waterfront Transit Advisory Committee.

The MBTA has selected the dual mode vehicle based on its flexibility, high capacity, and compatibility with the physicality of the three service routes it will accommodate during Silver Line

Phase II operation. The MBTA has ordered the dual mode vehicle fleet needed to provide Phase II service and accordingly, issued a Notice to Proceed and executed a contract with Neoplan USA.

Although they appear to be similar in aesthetic design, the electric trolley bus and the dual mode vehicle are very different in propulsion, capacity, length, and application. The sequencing of vehicle manufacturing is designed to avoid delays in opening the Phase II service.

Comment PR29: The issue of the potential extension of catenary into existing South Boston residential neighborhoods, such as City Point, needn't be addressed at this time.

The extension of existing South Boston neighborhood surface bus routes ... into the proposed Phase I Transitway would seem to offer little or nothing to existing or potential riders. It also may, given the limited layover space at South Station, negatively impact proposed Transitway Services.

Far more benefits would accrue in the short term for South Boston residents by the replacement of the existing surface bus fleet serving South Boston residential neighborhoods by new, low emission, 40-foot buses and the implementation of a free bus to rail transit policy.

Response: See the response to Comment PR21.

Comment PR30: If trolley bus services should be "considered in the future" for both the surface routes to BCEC and CMIP, then we see no reason why they can't be implemented immediately.

The short extension of catenary necessary to implement such services is presented as a vastly complex endeavor, full of unknown and potentially insurmountable obstacles.

The issue of "consensus" is continually raised. Given the cumulative air quality impacts resulting from the introduction of a major diesel bus operation in an area already experiencing a public health crises [*sic*], the necessity of having to achieve a complete consensus over such a minor item such as the small amount of catenary necessary to implement trolley bus operation seems totally unnecessary. Trolley bus operation into both the BCEC and BMIP should presented as a *given*, along with a clear presentation of different design treatments and guidelines to minimize the visual impacts of overhead wire installation.

Response: See the response to Comment PR21.

Comment PR31: All Transitway vehicles should be operated in electric, not diesel mode, when deadheading to the maintenance/storage facility. ... This would require extension of catenary along the Haul Road. Again, this is warranted given the positive public health impacts accruing from such a requirement.

Response: Operating the Silver Line vehicle in electric mode as it makes its way to the Southampton Street Maintenance Facility is not a viable option since this would require running catenary along the Haul Road. This catenary could interfere with truck operations along the Haul Road.

The Annual Update explains certain enhancements to the dual mode vehicle Emissions Control Plan, including the selection of a cleaner diesel engine than the one presented in the previous update. This new engine will have a 33 percent lower NOx profile, which significantly reduces the emissions differential between the NOx profile of a catenary powered vehicle and its upstream power supply (i.e., electric utility power generation station). This continues to greatly reduce public health impacts by leveraging the enhanced capabilities of diesel emissions control technologies.

Comment PR32: Given the significant negative air quality impacts arising from the operation of such a large diesel bus operation, the Peer Review Panel didn't make a clear or compelling case for not operating trolley buses on Massport's AITC services. ... [T]he Peer Review Panel appears to accept, without sufficient analysis, the necessity of operating both AITC and Transitway services with the *same vehicle*; and the necessity of both services having to commence operations *concurrently*. Absent these constraints, a more thorough alternatives analysis could have been conducted.

Response: As documented in Section 4.0 of the Annual Update, air quality analyses demonstrate significant reductions in all categories of pollutants as a result of Silver Line implementation and a reduction in auto trips which are diverted to transit. Trackless trolleys were thoroughly investigated as an alternative transit mode in the project's environmental review process; dual mode vehicles were ultimately selected given the operational flexibility they offered in serving the developing Waterfront area. Furthermore, installation of catenary needed to support operation of trackless trolleys in the Third Harbor Tunnel and along the roadway of Logan International Airport is not operationally or technically feasible.

Comment PR33: A proven zero emissions vehicle exists for the South Boston Piers Transitway Project - the electric trolley bus. Nothing has been introduced into this discussion that justifies the substitution of dual mode technology for an all electric vehicle technology.

The Club supports the continuing evaluation of emerging alternative fuel technologies for transit use, but the Transitway is the wrong arena in which to try and prove the success of such technology.

We therefore call upon the Commonwealth, and its agencies and authorities, to err on the side of caution, especially in the light of every increasing concerns over the health impacts of very small particulate material on urban populations, and reconsider its choice of vehicle for the South Boston Piers Transitway Project, Phase I.

Response:

Operation of trackless trolleys in Phase II of the Silver Line (formerly referred to as Transitway Phase I) was thoroughly investigated during the project's environmental review process. Dual mode vehicles were ultimately selected in order to facilitate needed operational flexibility in the developing Waterfront area. Furthermore, installation of catenary needed to support operation of trackless trolleys in the Third Harbor Tunnel and along the roadway of Logan International Airport is not operationally or technically feasible. As documented in Section 4.0, the air quality analysis demonstrates significant reductions in all categories of pollutants as a result of Silver Line operation and the diversion of auto trips to transit.

Francis "Mickey" Roache
Boston City Councillor At-Large

February 28, 2001

Mr. Andrew D. Brennan
Director of Environmental Affairs
MBTA
10 Park Plaza
Boston, MA 02116

Dear Mr. Brennan:

I am writing to offer comment on the Peer Review Panel Final Report on the South Boston Piers Area Transitway. Let me begin by saying that I am encouraged to see that progress has been made on the purchase of vehicles for the transitway, as it will be an integral part of the success of the planned South Boston Waterfront. While the independent panel has determined that the Neoplan vehicles are the most practical option for the early stages of the project, there are still concerns in several areas that must be addressed regarding the long-term implications of the system and its vehicles.

The MBTA must continue to work with the community in determining how the transitway can best benefit the residents of the South Boston neighborhood. While the planned transitway is intended to maximize access to the waterfront, it is of the utmost importance that its route network extends throughout the existing neighborhood, in order to ensure that local residents enjoy the benefits of the newly developed area. Also, it is important that as the MBTA looks forward to the second phase of the plan, you continue to explore what options may become available in terms of less harmful alternatives to the Neoplan's diesel component. This is particularly important due to the fact that the route will eventually consist of the already heavily impacted Dudley Square and Washington Street Corridor. PR34

In addition, since the first phase vehicles will have the aforementioned diesel component, although considered "light" diesel, the community would hope to see, if possible, a mechanism in place for continued monitoring of emissions levels impacting the neighborhood. Finally, with our eyes on the future health of the neighborhood, it is critical that we continue to pursue the eventual elimination of vehicle maintenance and storage from the First Street area of South Boston. PR35 PR36

The City of Boston, and in particular the neighborhood of South Boston, is undergoing rapid changes that, at times, seem difficult to keep up with. As we work together to maximize the benefits of development for all parties it is inevitable that we will face challenges that test our resolve. I believe that the ultimate benefits of the South Boston Piers Transitway far outweigh the challenges we will encounter as we strive to achieve the best for our neighborhoods.

Thank you for the opportunity to express my concerns on this very important matter.

Sincerely,

Francis M. Roache
Boston City Councillor-at-Large

New City Hall, One City Hall Square, Boston, MA 02201
Tel. # 635-3115 Fax # 635-2355

Printed on recycled paper

Francis "Mickey" Roache
Boston City Councillor At-Large

Comment PR34: The MBTA must continue to work with the community in determining how the transitway can best benefit the residents of the South Boston neighborhood. While the planned transitway is intended to maximize access to the waterfront, it is of the utmost importance that its route network extends throughout the existing neighborhood, in order to ensure that local residents enjoy the benefits of the newly developed area. Also, it is important that as the MBTA looks forward to the second phase of the plan, you continue to explore what options may become available in terms of less harmful alternatives to the Neoplan's diesel component. This is particularly important due to the fact that the route will eventually consist of the already heavily impacted Dudley Square and Washington Street Corridor.

Response: See the response to Comment PR21.

Comment PR35: In addition, since the first phase vehicle will have the aforementioned diesel component, although considered "light" diesel, the community would hope to see, if possible, a mechanism in place for continued monitoring of emissions levels impacting the neighborhood.

Response: See the response to Comment PR4.

Comment PR36: Finally, with our eyes on the future health of the neighborhood, it is critical that we continue to pursue the eventual elimination of vehicle maintenance and storage from the First Street area of South Boston.

Response: Since the time of the 2001 Annual Update, the MBTA filed a Notice of Project Change in which it proposed moving the Maintenance Facility from East First Street to Southampton Street, an industrial area far more suited to this type of facility. The NPC was approved by MEPA in a certificate dated May 25, 2001, and is now under construction.

The MBTA appreciates the support it received from Councillor Roache and other locally elected officials in facilitating this change.

84 Prince Street
Jamaica Plain
MA 02130
February 28, 2001

RECEIVED
MAR 1 2001
By

Andrew D. Brennan
Director of Environmental Affairs
Massachusetts Bay Transit Authority
10 Park Plaza Room 6720
Boston
MA 02116

Dear Mr. Brennan,

Enclosed are my comments concerning the Silver Line Transitway Peer Review Panel Final Report.

I would suggest that all of the monitoring sytems as suggested on page 61 of the Peer Review Report be put in place as well as monitoring of the requirement that the vehicles always use low sulfur diesel fuel. Monthly reports of the monitoring should be made available on the MBTA's web site so that the South Boston community as well as anyone else may monitor the environmental impact of the vehicles. **PR37**

I was disappointed to find no mention in the Peer Review report of the potential problems in operating the recommended vehicle in the salt atmosphere in which the Transitway will run. These conditions are certainly very different from the mountains of Switzerland. Perhaps the operation of the MBTA's Blue Line and the corrosive effect of a salt atmosphere on the Blue Line rolling stock could be studied for its relevance to the Transitway vehicles. It would be very disappointing and extremely expensive if the vehicles did not last 12 years. The vehicles are already projected at $1.5 million. You could buy one humdinger of a light rail vehicle for the over $3 million equivalency since a light rail vehicle is projected to last 25 years. **PR38**

To repeat I would ask that all recommended monitoring be implemented and all monitoring results be posted to the T's web site in monthly reports.

Very truly yours,

Karen Wepsic

Karen Wepsic

Karen Wepsic

Comment PR37: I would suggest that all of the monitoring systems as suggested on page 61 of the Peer Review Report be put in place as well as monitoring of the requirement that the vehicles always use low sulfur diesel fuel. Monthly reports of the monitoring should be made available on the MBTA's web site so that the South Boston community as well as anyone else may monitor the environmental impact of the vehicles.

Response: See the response to Comments PR4 and PR12.

Comment PR38: I was disappointed to find no mention in the Peer Review report of the potential problems in operating the recommended vehicle in the salt atmosphere in which the Transitway will run. ... Perhaps the operation of the MBTA's blue Line and the corrosive effect of the salt atmosphere on the Blue Line rolling stock could be studied for its relevance to the Transitway vehicles. It would be very disappointing and extremely expensive if the vehicles did not last 12 years.

Response: During the initial development of the initial procurement, the MBTA was careful to specify that the vehicle must be able to withstand typical New England climatic conditions. The MBTA is confident that this vehicle is capable of resisting corrosion due to salt.

Environmental Assessment/ Notice of Project Change, Silver Line Maintenance Facility on Southampton Street

Letters and Response to Comments

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114-2119

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GOVERNOR

BOB DURAND
SECRETARY

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May 25, 2001

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
NOTICE OF PROJECT CHANGE

PROJECT NAME	: Silver Line Maintenance Facility
PROJECT MUNICIPALITY	: Southampton Street - Boston
PROJECT WATERSHED	: Boston Harbor
EOEA NUMBER	: 6826/11707
PROJECT PROPONENT	: Massachusetts Bay Transportation Authority (MBTA)
DATE NOTICED IN MONITOR	: April 25, 2001

Pursuant to the Massachusetts Environmental Policy Act (G.L. c.30, ss. 61-62H) and Section 11.10 of the MEPA regulations (301 CMR 11.00), I have reviewed the Notice of Project Change (NPC) submitted on this project and determine that it **does not require** further MEPA review.

This NPC describes a proposed change in the location of the MBTA maintenance facility for the new Silver Line to Southampton Street in the Newmarket District of Boston. This location is supported by the Boston Redevelopment Authority (BRA) and the Boston Transportation Department (BTD). As noted in the Department of Environmental Protection's (DEP) comment letter, construction of the maintenance facility will enable the MBTA to meet its commitment to bring new clean-fuel vehicles into service, as required under the Central Artery consent order executed in September 2000. To ensure that this facility will be a "good neighbor", I strongly endorse the suggestion of Mayor Thomas Menino that the MBTA work with the BTD to establish a public design review process, with an agenda and a time line.

Project Background

The August 9, 1999 Certificate on the Notice of Project Change (NPC) combined two previously separate projects, the South Boston Piers Transitway (EOEA #6826) and the Washington Street Corridor Transit Service (EOEA #11707), into a single transit service (the Silver Line) from Dudley Square in Roxbury through

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downtown to the South Boston waterfront. According to this NPC, all Silver Line vehicles, as well as vehicles for Massport's Airport Intermodal Transit Connector (AITC), would have been housed on West First Street in South Boston. This facility was proposed as part of the Transitway project in the FEIR. However, the MBTA stated that it was considering alternatives to the location of the maintenance facility on West First Street. The alternatives include using an existing maintenance facility, or moving the proposed Silver Line maintenance facility to a site in the Southampton Street area (next to the MBTA Police Station). If the MBTA decided to pursue an alternative location for the maintenance facility, the Certificate required the proponent to submit an NPC to the MEPA Office.

Project Change Elements

This NPC was submitted for MEPA review on April 17, 2001. The proponent proposes to construct a Silver Line Maintenance Facility on Southampton Street consisting of the following components:

1) A 27,000 square foot (sf) Maintenance Building;
2) A 4,200 sf Fuel Building containing diesel, natural gas, and gasoline dispensing systems (fuel tanks will be located outside the building);
3) A 4,800 sf Bus Wash and Degrease Building;
4) An 11,200 sf Transportation Building; and
5) A parking structure (accommodating about 290 vehicles) constructed over a 60-space bus parking area.

The proposed maintenance facility would accommodate 77 buses and 173 employees on three shifts. The bus fleet includes the dual mode articulated buses to be operated in the Transitway serving the waterfront area and Logan Airport, compressed natural gas (CNG) buses to be operated on the Washington Street corridor between Dudley Square and downtown Boston, and additional system upgrades to CNG buses such as Routes 39 (Arborway - Back Bay), 1 (Harvard - Dudley), 15 (Kane Square/Fields Corner - Ruggles), 23 (Ashmont - Ruggles), 28 (Mattapan-Ruggles), or 32 (Wolcott Square - Forest Hills) could be supported at the Southampton Street maintenance facility. The 27 proposed 60-foot CNG buses from Route 39 would be stored and maintained at the Southampton Street facility.

Approximately 5.9 acres of the site are currently owned by the MBTA. The site houses the MBTA Police Headquarters Building, and a former truck service center, which will be demolished. The site will accommodate both the police and maintenance facilities. About 26,610 sf of land would be required for the realignment of

Moore Street (a private roadway) to facilitate bus queuing. The proponent would lease the L&B property (formerly Todesca) for temporary off-site parking for the maintenance facility, police personnel, and contractors during construction. Access to the site is from Southampton Street and from the Southeast Expressway (via an off-ramp for official use only). The main access to the proposed facility would be from Southampton and Moore Streets. Employees would enter from Southampton Street. Bus access would be provided to two Moore Street entrances. All vehicles will exit the site from Southampton Street. The existing limited access entry point for MBTA police and emergency vehicles only would be maintained. Access to the site may also be provided via South Bay Avenue.

Three fuel types will be stored on the site:

1) A 5,000-gallon aboveground gasoline tank with dispenser will be provided for police vehicles;
2) Two 10,000-gallon aboveground tanks will be installed between the Fuel Building and the Bus Wash and Degrease Building for storage of diesel fuel; and
3) Two 20,000-gallon CNG buffer tanks will be installed in the vicinity of the two diesel tanks along with a gas manifold, gas dryers, and two 500-horsepower CNG compressors.

In addition to the fuel dispensing systems on site, a DC substation with poles, foundations, trolley wires, and DC feeder will be installed at the maintenance facility. This on-wire system will supply electricity at the bus parking area to power dual mode vehicle heating systems and for on-wire testing of repaired dual mode vehicles.

The maintenance facility will operate 24 hours a day, seven days a week to store 77 buses. The feet will be comprised of 44, 60-foot articulated CNG buses and 32, 60-foot articulated dual mode buses. These numbers include spares. In the first year of operations the maintenance facility will house 17, 40-foot CNG buses for Washington Street service. When the 44, 60-foot CNG buses are received by the MBTA, 17 of the 44 buses will be dedicated to the Washington Street service, with the remaining 27 CNG buses to be operated on other MBTA routes.

According to the proponent, bus access to and from the facility would utilize major roadways and not local residential streets. The Piers Transitway and AITC vehicles would operate on the South Boston Bypass Road, pending the approval of the Central Artery/Tunnel (CA/T) Project. According to the traffic study submitted with the NPC (in accordance with a scope developed with BTD), the facility is expected to generate about 888 daily trips.

This number includes employee (police) and bus trips. However, relatively few trips occur during the morning and evening weekday peak hours.

Subsequent Steps

As suggested by Mayor Menino, the proponent should work with the Boston Transportation Department (BTD) to initiate a public design review process, which will identify the measures to be undertaken to minimize or mitigate any adverse effects of the project on traffic and trucking operations within this neighborhood. Any additional traffic analysis that results as a consequence of the process should include a further review of the proponent's access and egress options to the site. It should identify potential traffic conflicts between buses and existing trucking operations. Such analysis should address the concerns raised in the comment letters by the Newmarket Business Association (NBA). The MBTA should meet with Waldo Brothers and other abutting businesses represented by the NBA to develop a traffic operations plan, as suggested by the proponent's consultant at the onsite meeting on May 10th. This plan should be developed by the MBTA's consultant to demonstrate that the existing streets in this area can safely accommodate both trucking and MBTA buses. **NPC1** **NPC2** **NPC3**

Based on a review of the information provided by the proponent and after reviewing the comment letters, I find that the potential impacts of this project change do not warrant preparation of an EIR and can be addressed through the local and state permitting processes. No further MEPA review is required for the completion of the Silver Line maintenance facility.

May 25, 2001
DATE

Bob Durand

cc: David Murphy, DEP/Boston
David Shakespeare, DEP/NERO

Comments received:

MBTA, 4/20/01
Lloyd Fillion, 4/24/01
MA Sierra Club (MSC), 4/27/01
MBTA, 5/2/01
Newmarket Business Assoc. (NBA), 5/6/01
Dudley St. Neighborhood Initiative, 5/8/01
Solutek, 5/10/01

MSC, 5/12/01
Lloyd Fillion, 5/14/01
MSC, 5/15/01
Albany LLC, 5/15/01
Karen Wepsic, 5/15/01
Slade Gorton & Co., 5/15/01
The Grtr. Boston Food Bank, 5/15/01
Waldo Bros., 5/15/01
Samuels & Assoc., 5/15/01
DEP/Boston, 5/15/01
MA Div. of Marine Fisheries, 5/15/01
BWSC, 5/15/01
GPC, 5/15/01
Clean Buses for Boston..., 5/15/01
Seaport TMA, 5/15/01
BTD, 5/15/01
MBTA, 5/17/01
MBTA, 5/17/01
BED, 5/18/01
BRA, 5/21/01
So. Boston Environmental Health Watch, 5/21/01

PCC11707
BD/WTG/wg

Commonwealth of Massachusetts Executive Office of Environmental Affairs

Comment NPC1: As suggested by Mayor Menino, the proponent should work with the Boston Transportation Department (BTD) to initiate a public design review process, which will identify the measures to be undertaken to minimize or mitigate any adverse effects of the project on traffic and trucking operations within this neighborhood.

Response: The Newmarket Business Association (NBA) was identified by the City of Boston and the Boston Transportation Department (BTD) as the group to represent the public in the design review process. The NBA is a group of business local to the project including Waldo Brothers, Slade Gorton & Co. and the MBTA Police. Ongoing coordination meetings are held with representatives of the NBA, BTD, the Mayor's office, the Boston Redevelopment Authority (BRA), and the MBTA to discuss the Maintenance Facility design and construction, including traffic-related issues and mitigation.

Comment NPC2: Any additional traffic analysis that results as a consequence of the process should include a further review of the proponent's access and egress options to the site. It should identify potential traffic conflicts between buses and existing trucking operations. Such analysis should address the concerns raised in the comment letters by the Newmarket Business Association (NBA).

Response: As the design process for the facility progressed, truck activities were always of concern. The MBTA has worked to minimize the impacts to trucks in the area. Subsequent to the NPC filing, a supplemental traffic analysis report was performed. It was presented to the public design review process identified in the response to Comment NPC1 at a July 17, 2001 meeting attended by representatives of the NBA, City of Boston, BTD, BRA, and the MBTA. All access and egress options considered allowed for buses to enter and exit the site without disrupting the locations on Southampton Street that trucks use as staging areas. Multiple simulation models were run to ensure buses could do this. Furthermore, when the maintenance facility opens, the width of

Southampton Street (50') will allow buses, passenger cars and trucks to operate as they do today.

Comment NPC3: The MBTA should meet with Waldo Brothers and other abutting businesses represented by the NBA to develop a traffic operations plan... This plan should be developed ... to demonstrate that the existing streets in this area can safely accommodate both trucking and MBTA buses.

Response: A traffic operations plan was refined via the public design review process identified in the response to Comment NPC1. All vehicles would access the maintenance facility by heading north on Moore Street from Southampton Street. The vehicles would either enter the queuing/storage area on the west side at 34 Moore Street (LMB property) or directly enter the maintenance facility. The vehicles would egress the maintenance facility by heading south and turning either left or right onto Southampton Street.

ALBANY LLC
P.O. Box 157
Wayland, MA 01778
508-358-4654

05-14-01 P04:07 IN

BG

Ms. MaryBeth Mello
Deputy Regional Administrator
Federal Transit Administration
55 Broadway
Cambridge, MA 02171

Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

RECEIVED
MAY 15 2001
MEPA

RE: EOEA #6826 and #11701
MBTA Southampton Street Maintenance Facility Environmental Assessment
MBTA Southampton Street Maintenance Facility Notice of Project Change

Dear Ms. Mello and Mr. Durand,

I am writing to you to urge you to **deny** approval to the MBTA Southampton Street Maintenance Facility described in the above referenced document. This is the wrong place to locate this facility for environmental and financial reasons.

The studies included in the document do not support placement of this facility in this location – major intersections already rated "F" would see conditions worsen. Important businesses located in the area will not be able to survive the traffic conditions described in the document. Moreover, vital City agencies, like the ambulances from Boston City Hospital, and vehicles from the Fire Department and Inspectional Services will not be able to get to the scene of emergencies in a timely manner. **NPC4**

The document is flawed and inadequate as a basis to evaluate this site. The MBTA failed to study all of the intersections mentioned as routes to be used by the MBTA buses. The study was conducted during a limited off-peak period that did not take into account the seasonality and timing of truck traffic in the neighborhood. The study did not even consider access to and from the back of the site, moving buses away from the already-gridlocked Southampton Street/Melnea Cass/Massachusetts Avenue route. **NPC5**

The document proposes moving the storage, repair, refueling, and maintenance of vehicles for the "Silverline" to an area not served by the "Silverline". The neighborhood that receives the benefits should also bear the environmental costs of the facility. This would eliminate the 36% of "deadhead" travel – a huge number of wasteful trips through **NPC6**

an area that cannot support any additional traffic load, never mind these unnecessary, unproductive trips.

NPC7

The document minimizes the impact of the closing of Moore Street. I am a customer of Waldo Brothers and would like to take this opportunity to share my opinion that closing Moore Street will put Waldo Brothers out of business. By looking at the diagrams in the document, it is clear to me that the MBTA **intends** to put Waldo Brothers out of business or intimidate them and take Waldo Brothers property and the L&B Realty Trust property behind Waldo Brothers by eminent domain to expand this facility to store and maintain buses from additional routes beyond the maximum of 76 mentioned in the document (page 2-15 of the document). You should deny approval based on the duplicitous, underhanded, unethical and unfair businesses practices of the MBTA.

If you truly believe that the MBTA will limit the capacity of this site to 76 buses, then you should deny approval based on the exorbitant cost of the facility. At a budget of $58,457,099 (page 2-18 of the document), the cost works out to **$769,172.36 per bus**. That $769,172.36 does not even include the cost of buying the bus itself or the cost of constructing the Silverline/Transitway route! At this cost, the commuter bus service could be provided more efficiently by private operators located elsewhere, with far fewer environmental impacts. I am an MBTA bondholder and my analysis of these few figures from the document cause me to question the financial decision to press forward with this proposal. As you consider the deployment of your limited funds, consider the flawed financial analysis for this proposed facility.

The document claims that there was public comment and input that led to this proposal. The reality is that this is a "stealth" project moved to this site with no warning to the neighborhood. This site is the dumping ground for this facility as a result of public comments and input from residents of the South Boston and Jamaica Plain neighborhoods that will be served by the Silverline.

The process leading to the document, the studies contained in the document, and the document itself are flawed and inadequate. I urge you to reject the finding of "NO SIGNIFICANT IMPACT" and deny approval to this project.

Sincerely,

Bonnie L. Gossels, Manager

Albany LLC

Comment NPC4: The studies included in the document do not support placement of this facility in this location...

Response: The MBTA believes that the analysis in the NPC does support siting this facility at Southampton Street. MEPA required no further alternatives analysis.

Comment NPC5: The MBTA failed to study all of the intersections mentioned as routes to be used by the MBTA buses. The study was conducted during a limited off-peak period that did not take into account the seasonality and timing of truck traffic in the neighborhood.

Response: The intersections studied were those that would be most impacted by the buses. The further an intersection is from the facility, the less of an impact buses will have on it.

The project schedule made it difficult to collect data to sufficiently quantify seasonality of truck traffic. To account for this, a conservative growth rate of 1.5 percent per year was added to all existing truck and vehicle volumes to accommodate growth and seasonality.

The original study for the NPC collected all vehicle volumes during two periods: 6:00 to 9:00 a.m. and 3:00 to 6:00 p.m. These periods contain the highest vehicle periods and a useful truck period. At times outside of the periods studied, vehicle traffic would be less, and a greater number of trucks could be accommodated.

Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, additional analysis was performed to address truck activity in the area.

Comment NPC6: The neighborhood that receives the benefits [of Silver Line service] should also bear the environmental costs of the facility.

Response: The MBTA believes that the Southampton Street location is the appropriate site. In contrast, by placing the facility directly along the Silver Line corridor, this industrial facility would be in a residential neighborhood. Instead, by placing it in the industrial

area of Southampton Street, the MBTA can remove the impact from residences, while utilizing a location that can still serve the routes.

Comment NPC7: The document minimizes the impact of the closing of Moore Street.

Response: The MBTA believes that the NPC provided an adequate and proper assessment of the impacts on Moore Street. Neither MEPA nor the FTA required further assessment.

Boston Redevelopment Authority

Boston's Planning & Economic Development Office

Thomas M. Menino, *Mayor*
Clarence J. Jones, *Chairman*
Mark Maloney, *Director*

One City Hall Square
Boston, MA 02201-1007
Tel 617-722-4300
Fax 617-248-1937

MAY 21 2001

BG

Robert Durand, Secretary
Executive Office of Environmental Affairs
251 Causeway Street, 9th Floor
Boston, MA 02114-2150

RECEIVED
MAY 22 2001
MEPA

Attention: MEPA Unit

RE: EOEA# 6826 – South Boston Piers Transitway/Silver Line Maintenance Facility (Notice of Project Change)

Dear Secretary Durand:

Pursuant to regulations implementing M.G.L., Chapter 30, Sections 62-62H, the Boston Redevelopment Authority (BRA) has reviewed the above referenced Notice of Project Change and submits the following comments.

The subject project change involves a change of location for the proposed Silver Line Maintenance Facility, from a site on West First Street in South Boston to Southampton Street in the Newmarket Square area, adjacent to the existing MBTA Police Headquarters Building. The proposed facility will provide for the maintenance, fueling, and storage of the mixed fleet of vehicles that will serve the MBTA's South Boston Piers Transitway and the Washington Street Replacement Service, and Massport's AITC service. The proposed change in location of the Maintenance Facility is the result of a reconsideration by the MBTA of the suitability of the West First Street site, which was not well sited to service the overall Silver Line.

The proposed Maintenance Facility will consist of a maintenance building for vehicle maintenance, repairs, and inspections and for parts storage and distribution, a fuel building for vehicle fueling with diesel or CNG, a bus wash and degreasing building, a transportation building for staff and administration, and a garage for employee and MBTA police vehicles to be constructed above a bus parking area.

The Notice of Project Change contains an extensive transportation and environmental impact analysis of the proposed facility at the Southampton Street site. The traffic impacts are not expected to be significant. Although the facility is projected to generate 304 daily vehicle trips, due to the hours of the primary work shifts (7:00 a.m. to 3:00 p.m. and 3:00 p.m. to 11:00 p.m.), most of these trips would not occur during peak commuting hours (only approximately 20 vehicle trips are expected to occur in peak travel

periods). In addition, the 64 buses that the facility would serve would be dispatched from the facility at staggered times between 4:30 a.m. and 7:00 a.m., avoiding the peak hours. Half of these buses would begin to return to the site after 8:30 a.m. and leave again before 4:30 p.m., and all buses would return after 7:30 p.m., again avoiding peak travel times.

Bus access to and from the facility would utilize major roadways, including the Southeast Expressway, and not local streets. The Piers Transitway and AITC buses also would operate on the South Boston Bypass Road, pending approval of the Central Artery/Tunnel (CA/T) Project. Since MBTA buses accessing the Cabot bus facility are permitted to use the Bypass Road, the addition of the Silver Line buses to the approved usage list should not pose a problem. Therefore, we would urge the CA/T Project to grant this approval to the Silver Line vehicles. **NPC8**

The environmental impacts of the facility at the recommended location also are not expected to be significant. The project site is located in a built-up, highly industrialized area characterized by large warehouse operations. No sensitive land uses, such as residential, are located within 2,000 feet of the site. Although there would be an increase in vehicular emissions from the non-revenue operations of buses accessing the facility (over a no-build condition), this increase would be significantly offset by an overall reduction in regional air pollutant emissions resulting from the increased use of public transit services and reduced vehicle miles of travel.

We commend the MBTA for the water conservation and recycling measures that will be incorporated into the maintenance program. The bus wash water reclamation system proposed is designed to reclaim 75 percent of the wash water for reuse under normal operating conditions. The degreasing powerwash will be designed to recover 100 percent of the wash water. The overflow from the bus wash and degreasing reclaim system will be connected to oil and grease separators prior to discharge of the wash water into the sanitary system. Similarly, any drains in the site's parking areas and other paved areas also should be equipped with separators in compliance with Boston Water and Sewer Commission regulations. **NPC9**

The principal impacts could come from the presence of potentially hazardous concentrations of lead and other contaminants on the site. However, the site is listed as a disposal site and necessary remediation will be undertaken during site development. Since the existing soil is unsuitable to support the proposed buildings and parking areas, the top two feet will need to be removed and disposed of off-site in a controlled manner. **NPC10**

Due to the minimal impacts anticipated from this project, as well as the analysis contained in the Notice, we do not believe that further review through an Environmental Impact Report would be necessary.

Sincerely,

Richard B. Mertens, AICP
Environmental Review Officer

cc: Andrew D. Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority

Boston Redevelopment Authority

Comment NPC8: Bus access to and from the facility would utilize major roadways, including the Southeast Expressway, and not local streets. The Piers Transitway and AITC buses also would operate on the South Boston Bypass Road, pending approval of the Central Artery/Tunnel (CA/T) Project. Since MBTA buses accessing the Cabot bus facility are permitted to use the Bypass Road, the addition of the Silver Line buses to the approved usage list should not pose a problem. Therefore, we would urge the CA/T Project to grant this approval to Silver Line vehicles.

Response: The MBTA will work with the CA/T project to gain approval for use of the Bypass Road for the Silver Line vehicles. If any environmental permits or approvals are needed, they will be filed by the MBTA.

Comment NPC9: The overflow from the bus wash and degreasing reclaim system will be connected to oil and grease separators prior to discharge of the wash water into the sanitary system. Similarly, any drains in the site's parking areas and other paved areas should be equipped with separators in compliance with Boston Water and Sewer Commission regulations.

Response: Under normal operation, the floor water inside the Buswash and Degrease building is reclaimed. In the unlikely event of wash system overflow, the water is discharged to an oil-water separator and then discharged to the BWSC sanitary lines. All storm drainage from the maintenance facility discharges to oil-water separators. All oil-water separators comply with BWSC regulations.

Comment NPC10: Since the existing soil [on the site] is unsuitable to support the proposed buildings and parking areas, the top two feet will need to be removed and disposed of off-site in a controlled manner.

Response: The removal of the soil from the site will be managed in accordance with a Release Abatement Measures (RAM) Plan submitted to DEP. In addition, specifications provide detailed requirements for the management of the soil removal and disposal in accordance with applicable regulatory requirements.

BOSTON
TRANSPORTATION
DEPARTMENT

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BG

RECEIVED
MAY 23 2001
MEPA

May 15, 2001

Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114
Attn: MEPA Office
William Gage, EOEA No. 6826 & 11707

Re: Silver Line Maintenance Facility on Southampton Street
Environmental Assessment/Notice of Project Change
EOEA No. 6826 & 11707

Dear Secretary Durand,

Thank you for the opportunity to review the above referenced Environmental Assessment/Notice of Project Change form. The document was submitted by the MBTA relative to the proposed change in location of the maintenance facility for the Silver Line to a site on Southampton Street in the Newmarket business district in Boston.

Specifically, the MBTA is proposing to build a maintenance and storage facility for a fleet of 77 vehicles. Forty-four(44) of these will be 60-foot articulated converted natural gas buses which will serve the Washington Street Silver Line and the Route 39 in Jamaica Plain. The remaining thirty-two(32) will be 60-foot articulated dual mode vehicles which will serve the South Boston routes of the Silver Line.

The Boston Transportation Department has been working with the MBTA on all phases of the Silver Line, and is eagerly anticipating the completion of both the Washington Street and South Boston elements of this service. BTD recognizes and applauds the MBTA's efforts to modernize and upgrade their bus service by incorporating bus rapid transit and cleaner fuel technologies throughout the system. The change in technology and expansion of service necessitate that the MBTA build new maintenance and storage facilities and the City has been working with the MBTA on that effort.

From a citywide transportation perspective, the Southampton Street facility is situated well for the routes that it will serve, thus helping to reduce dead heading(out of service) trips and mileage on City streets. However, the unique character and circulation pattern of the Newmarket area require that special attention be paid by the MBTA in the planning, design and operation of the proposed facility. The Newmarket business district is Boston's busiest and most

concentrated trucking and distribution area and a vital part of Boston's economy and the City needs to protect the necessary operations of these establishments.

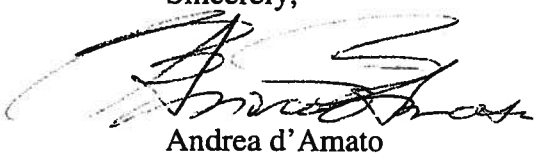
BTD has reviewed the descriptions, plans and analysis presented in the Environmental Assessment/Notice of Project Change and believes that the impacts of this project can be managed or mitigated within the Newmarket area. The filing captures many of the regional impacts of the facility, but does not adequately address all of the potential localized impacts of the facility on truck circulation and operations. Therefore, the specific impacts that this project may have in the Newmarket area should be reviewed with the BTD and the Newmarket community. **NPC11**

These specifics include potential impacts on the surrounding street network during peak truck traffic periods, as well as operational impacts on the specific operations of businesses adjacent to the facility itself. The analysis should include a breakdown of peak truck traffic on the street network and an analysis of bus operations during those periods. Additionally, the specifics of truck operations should be incorporated into the analysis of any intersection.

In working with BTD and the Newmarket community, methods to mitigate or eliminate the localized impacts of the facility should be explored. Potential mitigations may include alterations to the design of the facility, including access and egress points and internal circulation patterns. Physical or operational changes to the surrounding street network should be considered as well. Lastly, any changes to the operation of the proposed facility itself should be explored and altered to help minimize the localized impacts of this facility on the Newmarket community. **NPC12**

BTD looks forward to working collaboratively with the MBTA and the community to address these outstanding concerns. Thank you for the opportunity to review and comment on this important project for the City of Boston.

Sincerely,



Andrea d'Amato
Commissioner

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Boston Transportation Department

Comment NPC11: The filing captures many of the regional impacts of the facility, but does not adequately address all of the potential localized impacts of the facility on truck circulation and operations. Therefore, the specific impacts that this project may have in the Newmarket area should be reviewed with the BTD and the Newmarket community. ... These specifics include potential impacts on the surrounding street network during peak truck traffic periods, as well as operational impacts on the specific operations of business adjacent to the facility itself. The analysis should include a breakdown of peak truck traffic on the street network and an analysis of bus operations during those operations. Additionally, the specifics of truck operations should be incorporated into the analysis of any intersection.

Response: Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, additional analysis was conducted to address truck activity in the Newmarket area. The analysis included business interviews, manual truck counts, a review of existing data, and observation of operations of the businesses adjacent to the proposed facility. The resulting memorandum concluded that the peak operational hours of the bus facility do not coincide with truck activity on Southampton Street.

Comment NPC12: In working with BTD and the Newmarket community, methods to mitigate or eliminate the localized impacts of the facility should be explored. Potential mitigation may include alterations to the design of the facility, including access and egress points and internal circulation patterns. Physical or operational changes to the surrounding street network should be considered as well. Lastly, any changes to the operation of the proposed facility itself should be explored and altered to help minimize the localized impacts of this facility on the Newmarket community.

Response: Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, the MBTA has worked with BTD and Newmarket to minimize the impacts of the facility. The discussions have resulted in changing facility curb cuts on Southampton Street and minimizing the impact on Waldo Brothers.

Boston Water and Sewer Commission

980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000

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MAY 16 2001
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May 15, 2001

Secretary Robert Durand
Executive Office of Environmental Affairs
Attention: MEPA Office
Mr. William Gage, EOEA #6826 / 11707
251 Causeway Street, Suite 900
Boston, MA 02114

Re: Silver Line Maintenance Facility,
Southampton Street, Boston
Environmental Assessment / Notice of Project Change

Dear Secretary Durand:

The Boston Water and Sewer Commission (Commission) has reviewed the Environmental Assessment (EA) / Notice of Project Change (NPC) for the Silver Line Maintenance Facility on Southampton Street.

The proposed project is located on a 5.9 acre site which currently houses the MBTA Police Headquarters Building. The site is bounded by Moore Street to the west, the Southeast Expressway to the north, Southampton Street to the south and private property to the east. The current site is large enough to accommodate the Police Headquarters and the proposed bus maintenance, fueling and storage facilities, although approximately 26,610 square feet of additional land will need to be acquired to realign Moore Street to facilitate bus queuing.

Currently, there are two buildings on the site: the MBTA Police Headquarters Building, and a vacant building that was used for truck service maintenance, which will be demolished.

The project consist of four buildings: a 27,000 square foot maintenance building; a 4,200 square foot fuel building; a 4,800 square foot bus wash and degrease building; and a two-level parking structure that will accommodate 77 buses and approximately 290 personally-owned and MBTA police vehicles and have an 11,200 transportation building which will house the DC power substation for the overhead catenary system, mechanical systems and offices.

Three types of fuel will be stored on the site: a 5,000-gallon aboveground gasoline tank; two 10,000-gallon aboveground diesel fuel tanks and two 20,000-gallon compressed natural gas buffer tanks.

For water service, the site is served by a 16-inch high service main and a 30-inch low service main on Southampton Street and a 12-inch low service main on Cummings Street, South Bay Avenue and Moore Street. The MBTA proposes to relocate the 12-inch low service water main on Moore Street as part of the street's realignment.

For sanitary and storm drain service, the site is served by a 12-inch sewer on South Bay Avenue and an 18-inch sewer on Southampton Street and a 48-inch storm drain on Southampton Street.

The MWRA's Boston Main Drainage Tunnel is located under the site. The MBTA should contact the MWRA to determine appropriate measures to ensure that MWRA's pipe is not damaged during construction.

The EA / NPC does not provide an estimate of water demand or sanitary sewage that will be generated by the project.

The EA / NPC covers some of the Commission's general concerns; however the Commission has the following additional comments:

General

1. All new or relocated water mains, sewers and storm drains and connections to these pipes must be designed and constructed at the MBTA's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans, available by contacting the Engineering Services Division **NPC13**

2. The MBTA must submit a site plan to the Commission's Engineering Services Division for review and approval. The site plan should show the location of existing water mains, sewers and storm drains which serve the site. The site plan must also show any existing and proposed water, sanitary sewer and storm drain connections. **NPC14**

   To assure compliance with the Commission's requirements, the site plan and a General Service Application, must be submitted to the Commission's Engineering Services Division for review and approval when the design of the relocated Moore Street water main and the proposed water and sewer service connections are 50 percent complete.

3. The Commission requires that existing water and sewer connections be cut and capped at the water main and sewer line in the street before demolition of any existing building on the site. Verification is required prior to the demolition of existing structures, and all connections must be capped in accordance with Commission standards. **NPC15**

Water:

1. The Environmental Impact Report (EIR) should contain an estimate of the water required for the project. The MBTA should also provide the methodology used to estimate water demand for the proposed project. **NPC16**

2. The MBTA is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. **NPC17**

3. The MBTA will be required to install approved backflow prevention devices on the water services for fire protection, vehicle wash, mechanical and any irrigation systems. The MBTA is advised to consult with Mr. Ken Green, Manager of Cross Connection Control, with regards to backflow prevention. **NPC18**

4. Water service to the building must be metered in accordance with the Commission's Site Plan Requirements. In addition, if the project will use more than 500 cubic feet or 3,750 gallons of water per day, the MBTA, must provide for the connection of the water meters to the Commission's automatic meter reading system. The property owner must provide meter interface units (MIUs), approved by the Commission and mounted near each meter, a telephone line and jack near the meter, and an outside meter reading device, at the owner's expense. The Commission will connect the telephone lines and MIUs to the meter and program the MIU, at the Commission's expense. For information regarding the installation of automatic meter reading, the MBTA, should contact Mr. Mark Aigen of the Commission's Meter Installation Department. **NPC19**

Sewage / Drainage:

1. The EIR should contain an estimate of the quantity of sewer flow for the proposed project. The MBTA should provide the methodology used to estimate the sewer generation and an analysis of the capacity of the Commission's wastewater system with an evaluation of the projects impact on the Commission's system. **NPC20**

2. The NPC states that the rinse water from the bus wash will go through an oil-water separator and discharge to a storm drain. *The Commission requires the rinse water to be discharged to the sanitary sewer system.* **NPC21**

3. Stormwater from the project site must be managed during the construction of the building and after the project has been completed. The EIR should include a detailed stormwater management plan and an analysis of the project's stormwater impact. The EIR should also describe the structures that will be installed to capture spills if an above-ground tank leaks or ruptures. **NPC22**

In addition, a stormwater management plan must be submitted to the Commission, which includes the following:

- Best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or stormwater runoff from the maintenance building to the Commission's drainage system when construction is underway.

- Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction.

- Provide a stormwater management plan in compliance with DEP's standards. The plan should include a description of the measures to control pollutants in stormwater after construction is completed.

4. The Commission believes a NPDES Stormwater Permit will be required for the project. The permit is issued by EPA and DEP. A copy of the NPDES permit and any pollution prevention plan prepared pursuant to the Permit, should be provided to the Commission, prior to construction. The pollution prevention plan submitted pursuant to an NPDES permit may be submitted in lieu of the pollution prevention plan required by the Commission provided the plan addresses the same components identified in item 3 above. **NPC23**

5. The enclosed floors of the parking garage must drain through a oil separators into the sewer system in accordance with the Commission" Sewer Use Regulations. If the top level of the garage is an open parking area, it must discharge to a storm drain equipped with a particle separator. The Commission's Requirements for Site Plans include requirements for the separators. **NPC24**

Thank you for the opportunity to comment on this project.

Yours truly,

for John P. Sullivan, P.E.
Chief Engineer

JPS/cj

c: A. Brennan, MBTA
K. McManus, MWRA
B. Delaney, MWRA
R. Mertens, BRA
M. Zoldy, BED

Boston Water and Sewer Commission

Comment NPC13: All new or relocated water mains, sewers and storm drains and connections to these pipes must be designed and constructed at the MBTA's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans, available by contacting the Engineering Services Division.

Response: All new and relocated water mains, sewer and storm drains, and connections have been designed and will be constructed at the MBTA's expense. The design and construction complies with the BWSC design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans.

Comment NPC14: The MBTA must submit a site plan to the Commission's Engineering Services Division for review and approval. The site plan should show the location of existing water mains, sewers and storm drains which serve the site. The site plan must also show any existing and proposed water, sanitary sewer and storm drain connections. To assure compliance with the Commission's requirements, the site plan and a General Service Application, must be submitted to the Commission's Engineering Services Division for review and approval when the design of the relocated Moore Street water main and the proposed water and sewer service connections are 50 percent complete.

Response: A site plan, storm and sanitary profiles, structure schedule, and miscellaneous details have been submitted to the BWSC Engineering Services Division for their review and approval. The General Service Application has also been submitted, and is shown on the plans.

Comment NPC15: The Commission requires that existing water and sewer connections be cut and capped at the water main and sewer line in the street before demolition of any existing building on the site. Verification is required prior to the demolition of existing structures, and all connections must be capped in accordance with Commission standards.

Response: All existing and abandoned water/sewer connections to the Mercedes building have been cut and capped by the Contractor prior to demolition in accordance with BWSC standards.

Comment NPC16: The Environmental Impact Report (EIR) should contain an estimate of the water required for the project. The MBTA should also provide a methodology to estimate water demand for the proposed project.

Response: Estimates of both peak and daily water demand have been provided to the BWSC. The methodology for determining water demand, in accordance with the Mass Plumbing code, was fixture units except specialized equipment such as the bus wash, which was based upon manufacturer's information.

Comment NPC17: The MBTA is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered.

Response: The maintenance facility construction contract requires the Contractor to secure all necessary permits, licenses, certifications, inspections, and approvals required for the work of this Contract. This includes the hydrant connections, backflow preventers, and metering of water used by the Contractor.

Comment NPC18: The MBTA will be required to install approved backflow prevention devices on the water services for fire protection, vehicle wash, mechanical and any irrigation systems.

Response: The design of all new water and fire protection lines have the appropriate backflow prevention devices and have been approved by BWSC.

Comment NPC19: Water service to the building must be metered in accordance with the Commission's Site Plan Requirements. In addition, if the project will use more than 500 cubic feet or 3,740 gallons of water per day, the MBTA must provide for the connection of the water meters to the Commission's automatic meter reading system. The property owner must provide meter interface units (MIU), approved by the Commission and mounted near each meter, a telephone line and jack near the meter, and an outside meter reading device, at the owner's expense. The Commission will connect the telephone lines and MIUs to the meter and program the MIU, at the Commission's expense.

Response: The design includes provisions for meter interface units (MIU) for the two water meters.

Comment NPC20: The EIR should contain an estimate of the quality of sewer flow for the proposed project. The MBTA should provide the methodology used to estimate the sewer generation and an analysis of the capacity of the Commission's wastewater system with an evaluation of the project's impact on the Commission's system.

Response: An estimate of both the peak and the daily sewerage rates have been provided to BWSC. The quality of water for bus wash effluent has also been provided. The sewerage discharge rates are below MWRA minimums for additional permit considerations. The methodology for determining sewerage flow, in accordance with the Mass Plumbing code, was fixture units except specialized equipment such as the bus wash, which was based upon manufacturer's information.

Comment NPC21: The NPC states that the rinse water from the bus wash will go through an oil-water separator and discharge to a storm drain. The Commission requires the rinse water to be discharged to the sanitary sewer system.

Response: The effluent from the bus wash recycle unit will go through an oil water separator and be discharged to the sanitary sewer.

Comment NPC22: Stormwater from the project site must be managed during the construction of the building and after the project has been completed. The EIR should include a detailed stormwater management plan and an analysis of the project's stormwater impact. The EIR should also describe the structures that will be installed to capture spills if an above-ground tank leaks or ruptures.

Response: During the construction of the facility, the maintenance facility Contractor is required to develop a stormwater management plan per the construction contract. A draft Spill Prevention Control and Countermeasures Plan and Stormwater Pollution Prevention Plan have been developed for the completed maintenance facility and is presently under review.

Comment NPC23: The Commission believes a NPDES Stormwater Permit will be required for the project. ... A copy of the NPDES permit and any pollution prevention plan prepared pursuant to the Permit, should be provided to the Commission, prior to construction. The pollution prevention plan submitted pursuant to an NPDES permit may be submitted in lieu of the pollution prevention plan required by the Commission provided the plan addresses the same components identified [in the Commission's comment letter].

Response: The maintenance facility Contractor has obtained an MWRA permit to discharge the treated site dewatering into the MWRA system. It

was determined that the site runoff will be discharged into the MWRA system and ultimately to the Deer Island Treatment plant.

Comment NPC24: The enclosed floors of the parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. If the top level of the garage is an open parking area, it must discharge to the storm drain equipped with a particle separator. The Commissions' Requirements for Site Plans include requirements for the separators.

Response: The maintenance facility design complies with requirements, including BWSC "Requirements for Site Plans." The design shows the enclosed floors of the garage draining to an oil-water separator and into the sanitary sewer system. The top level of the garage discharges to a particle separator and then into the storm drain system.

CITY OF BOSTON
THE ENVIRONMENT DEPARTMENT

Boston City Hall, Room 805 • Boston, MA 02201 • 617/635-3850 • FAX: 617/635-3435

BG

May 18, 2001

RECEIVED
MAY 22 2001
MEPA

Robert Durand, Secretary
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114
Attention: William Gage, MEPA Office

Re: Southampton Street Maintenance Facility - Notice of Project Change
EOEA #6826/11707

Dear Secretary Durand:

The City of Boston Environment Department has reviewed the Notice of Project Change (NPC) and hereby submits the following comments to promote the use of proven environmental strategies and technologies in fulfilling environmental requirements.

PROJECT DESCRIPTION

The proponent, the Massachusetts Bay Transportation Authority (MBTA), had originally planned to construct a South Boston Piers Maintenance Facility in the South Boston Waterfront area near East First Street. Vehicles that are used along Washington Street were to be housed and maintained at a facility at the Arborway in Jamaica Plain. The MBTA has determined that vehicles to be used on the now-combined Silver Line service will be best stored and serviced at what is identified as a more centralized location. The MBTA believes that a facility on Southampton Street is an appropriate location, one that will have fewer impacts on residential neighborhoods than other alternatives.

The Southampton Street location is adjacent to the MBTA Police Headquarters Building in the Newmarket Square area of Boston. The site is bounded by Southampton Street, Moore Street, the Southeast Expressway and by private property that is occupied by an electric substation and an industrial building.

The proposed facility would accommodate 77 60-foot buses (17 40-foot buses in the first year of operation), 173 employees and the following:

- a 27,000 square foot (sf), nine bay Maintenance Building;
- a 4,200 sf Fuel Building containing diesel, natural gas and gasoline dispensing systems. Fuel tanks would be located outside of the building. A 5,000 gallon tank will provide gasoline for the MBTA Police fleet, a 10,000 gallon tank will store diesel fuel and two 20,000 gallon will store CNG;
- a 4,800 sf Bus Wash and Degrease Building;
- a 11,200 sf Transportation Building; and
- a parking structure for 290 vehicles constructed over a 60-space bus parking area.

The site will also house a DC substation with poles, foundations, trolley wires and a DC feeder. This system will supply electricity at the bus parking area to power dual mode vehicle heating systems and for on-wire testing of repaired dual mode vehicles.

A minimum of five entry and access driveways are planned for the site with bus access limited to two Moore Street entrances. MBTA employees will enter the site on Southampton Street. Access may also be provided from South Bay Avenue. The NPC indicates that the planned layout should result in few bus back-up maneuvers.

The maintenance facility will operate 24 hours per day, seven days per week. It will be partially constructed in 2002 and will support the 17 40-foot buses. When completed in 2003, the facility will support the full fleet.

Buses will depart from the facility between 4:30 and 6:30 a.m. and between 2:00 and 4:00 p.m. Daily, after evening peak service operations, buses will queuing on-site on Moore Street, proceed to the Fuel Building and then most will move to the Bus Wash and Degrease Building. Buses not being washed and degreased will be parked. Buses will enter the Maintenance Building for service as needed. The NPC states that management procedures will be established during operation of the facility for minimize queuing and idling.

The Fuel Building will have two fuel island, each equipped with one diesel dispenser and one CNG dispenser. The Bus Wash and Degrease Building will be equipped with a bus wash system that will reclaim and reuse about 75 percent of the wash water. Water that is not recycled will pass through an oil-water separator before leaving the site through an unspecified system. The degreasing water reclaim system will recycle about 100 percent of water used.

The NPC provides information about estimated Phase I Silver Line deadhead routes. Information on Phase II is not presently available.

The NPC describes deadhead routes for buses that would be served by the Southampton Street facility. The #39 bus that provides service between Forest Hills (Arborway) and Back Bay Station is to be serviced and stored there. The deadhead route for buses originating or terminating at Forest Hills will take them through Franklin Park.

Maintenance staff at the facility will work either a 7:00 a.m. to 3:00 p.m. shift or a 3:00 p.m. to 11:00 p.m. shift. Administrative staff hours are not identified nor are the various shifts that bus drivers may work. Ninety (90) percent of employees at the facility will drive to work.

The NPC states that "green" design features will be incorporated into the facility. Efficient lighting, water recycling as feasible and recycling of other materials are identified.

The NPC states that no parklands are impacted by the proposed facility.

RESPONSE

The department is supportive of the MBTA's Silver Line project and plans for converting the bus fleet to low-emission vehicles. There are, however, a number of issues that we believe require the additional attention and the provision of further information.

City Of Boston Environment Department Guidelines For Responsible and Sustainable Development (Guidelines) and informational materials on conservation and resource protection are being provided to the proponent with a copy of these comments. The Guidelines are designed to protect, in both the short and long term, the environmental health of those who live and work in Boston and to preserve and promote the integrity of our natural resources. Informational materials and Guidelines should be used as a resource for minimizing the environmental impacts of the proposed project.

We support the MBTA's proposal that non-revenue Silver Line vehicles use the Bypass Road when returning to Southampton Street.

This department requests that the proponent examine alternatives to non-revenue trips to and from Forest Hills through Franklin Park. **NPC25**

The NPC identifies only construction-related impacts to business activity in the project area. The owners of businesses in the Newmarket area have expressed concern that the added bus traffic will hinder trucker access to loading/delivery areas, particularly in the early morning when the majority of deliveries are conducted. This department is concerned that such conflicts will increase truck idling in the area, further degrading air quality. This issue deserves analysis and mitigation if appropriate. **NPC26**

Conservation, Recycling and Environmental/Resource Protection

Air Quality

The NPC does not acknowledge that mechanical systems are a source of air pollutants and does not discuss ways in which pollutants from stationary sources can be minimized. **NPC27**

The parking garage should have Carbon Monoxide (CO) monitors that have direct read meters as well as visual and audio alarms. **NPC28**

Energy Efficiency and Green Technologies/Buildings

A "green building" is one that uses efficient equipment, as few ducts as possible, less energy and more daylight, has fewer leaks but more fresh air than traditional buildings, no cold spots, good indoor air quality, and reduces impacts on utilities and infrastructure systems. The creation of a "green building," requires attention to many elements that must be integrated into planning and design.

We strongly recommend that the proponent participate in the U.S. Environmental Protection Agency's (EPA) **Energy Star/Green Lights** program and consider using the **Leadership in Energy & Environmental Design (LEED™)** standards for the project. LEED™, a green building rating and certification system is a program of the U.S. Green Building Council (USGBC), evaluates environmental performance from a "whole building" perspective over a structure's life cycle. Specific energy-conserving project elements **NPC29**

might include T-5 or T-8 fluorescent lighting systems, an energy management system, the use of combined cycle gas turbines, fuel cells, proton extended microturbines for heat and power and alternatives to diesel generators.

The building envelope is important for the heating and cooling load and for comfort at the building perimeter. Glazing with a low shading coefficient will result in appropriately sized HVAC systems, lower peak demand, reduced energy consumption for cooling and increased interior comfort. Low-e glass with argon, for example, is a good option for maximizing heating and cooling savings. Heat Mirror, Vision Wall and Superglass are products that the proponent should evaluate when glazing decisions are being made.

Daylighting and the use of dimmable ballasts with photosensors can be combined for substantial savings in lighting costs.

Constructing a building heating system that is 20 percent more efficient than the standards of the American Society of Heating, Refrigerating and Air- Conditioning Engineers, Inc. (ASHRAE) can cost 0.5 to 2 percent more than the less efficient standard with a two to three year payback time. A system that is 30 percent more efficient can cost one to three percent more with a payback period of five to seven years.

Application of cool roof material is an inexpensive option for energy conservation and peak demand savings. Cool roofs are both highly reflective and emissive, and stay 50 to 60 degrees Fahrenheit cooler during peak summer conditions than traditional hot materials. These cooler surfaces transmit less heat into buildings, helping them reduce cooling energy use as well as peak electricity demand. The EPA's Energy Star program has compiled a list of more than 100 highly reflective roofing products.

Cool roofing has been available for well over twenty years with research confirming its benefits began to mount in the 1990's. The Lawrence Berkeley National Laboratory and the Florida Solar Energy Center have led the way in monitoring energy savings of actual buildings and modeling of theoretical buildings. The Lawrence Berkeley National Laboratory and Oak Ridge National Laboratory have investigated the properties and durability of cool roof materials. Two years ago the EPA added roofing to its roster of Energy Star labeled products. The US EPA's Heat Island Reduction Initiative has also spearheaded the formation of "Cool Community" programs in cities across the United States. Cool roofing can be expected to reduce cooling energy use by an average of 0.4 kilowatt hours per square foot (about 20%) and electricity demand by 0.3 watts per square foot (about 6%). Actual energy and demand savings are difficult to pinpoint for any particular building, but research shows that buildings with lower insulation levels, no attic or plenum space below the roof, and correctly sized cooling equipment stand to save the most with cool roofing.

Cool roofing has many other benefits besides energy and demand savings. The two main causes of roof failure, exposure to ultraviolet rays and excessive temperature, are greatly minimized on cool roofs. This means that cool roofing lasts longer and costs less to maintain than traditional roofing, mainly because it can reduce or even eliminate costly roof tear-offs. This not only saves money for the building owner, but also reduces waste

to landfills. Cool roofing can improve the comfort inside both cooled and non-cooled buildings as well as reducing outside air temperatures. Traditional hot roofs hit peaks of 150 to 190 degrees Fahrenheit during the summer and transfer this heat to the building below and the air above. Cool roofs reach peaks of only 100 to 130 degrees Fahrenheit and reduce the heat load on the building as well as the heat island effect on the surrounding community. Reducing heat islands in urban areas not only reduces the risk of heat stress, but also reduces smog formation and associated asthma and respiratory distress.

Lighting

Careful choices should be made about exterior project lighting. It should serve operational and security needs while not adding to light pollution. Fixtures should be downward directed or shielded. The Good Neighbor Outdoor Lighting information is an excellent guide to urban lighting design. **NPC30**

Noise

The project is subject to the Regulations for the Control of Noise in the City of Boston (Regulations) and must meet the residential levels. We remind the proponent that emergency generators are subject to the Regulations. All exterior mechanical equipment and other noise-producing activities must be attenuated or managed to comply with the Regulations. **NPC31**

Solid Waste and Recycling

One of the City's goals is to increase the reuse and recycling of wastes. State law bans the disposal of recyclables in solid waste facilities. Recycling will help to extend the life of landfills and minimize the pollutants emitted by incinerators. Adequate, convenient space should be made available at the project for recycling to maximize rates. In accord with City objectives, it is essential that both the residential and retail space be designed with adequate sorting, storage and pick-up space for recyclables in anticipation of increasing rates of recycling over the operational life of the project. **NPC32**

WasteCap of Massachusetts, with funding from the Massachusetts Executive Office of Environmental Affairs (EOEA) and DEP, compiles and produces the Recycling Service Directory and Markets Guide for Massachusetts. This directory, updated in 2000, provides information on recycling service providers who accept, collect or purchase recyclable materials and other sources of recycling market information. Such materials include cardboard, pallets and fluorescent lamps and ballasts. **WasteCap** also provides technical assistance to businesses interested in establishing recycling programs. This resource should be used in establishing recycling programs for the non-residential uses at the project.

Stormwater Quality

The Boston Water and Sewer Commission (BWSC) spends more than $300,000 annually for the disposal of materials removed from catch basins. This cost does not include labor and general operating and maintenance costs. In addition, the quality of stormwater is receiving increasing regulatory attention as it is a primary contributor to the condition of receiving water bodies. We hope that the proponent will help to educate the public and **NPC33**

further improve the water quality of local water bodies by agreeing to the permanent installation of plaques at all storm drains that bear the warning "Don't Dump - Drains to Boston Harbor." The casting can be obtained from the Engineering Division at the BWSC (617-330-9400).

Construction

Air and Water Quality

Street and sidewalk cleaning should be done at least weekly and a vacuum sweeper should be used to prevent the transport of sediment onto city streets and into the stormwater system. **NPC34**

A wheel wash should be used at each vehicular exit from the project to prevent the tracking of dust, mud and other materials onto city streets. **NPC35**

According to the Massachusetts Department of Environmental Protection (DEP), about 33 percent of mobile source particulate matter (PM) and ten percent of all nitrogen oxide (NO_x) pollution in the northeast is caused by construction vehicles. More than 90 percent of diesel engine particulate emissions are highly respirable and carry toxins deep into the lung, exacerbating human respiratory ailments. The U. S. Environmental Protection Agency (EPA) has proposed classification of diesel exhaust as "highly likely to be carcinogenic in humans." It estimates that diesel engines currently on the road can run for 1,000,000 miles and remain in operation for as much as 20 to 30 years. This amounts to 160 to 240 tons of pollution over the life of each engine.

In November 1998 DEP inaugurated the Massachusetts **Clean Air Construction Initiative** (CACI) as part of its Mobile Source Emissions Control Effort. The Voluntary Diesel Retrofit Program of the CACI is designed to reduce air quality degradation caused by emissions of carbon monoxide (CO), volatile organic compounds (VOC), NO_x and air toxics from heavy-duty, diesel-powered construction equipment. Oxidation catalysts and catalyzed particulate filters reduce toxic emissions of formaldehyde, benzene, acrolein and 1-3 butadiene by as much as 70 percent.

The CACI offers contractors a cost-effective way to decrease localized adverse impacts and reduce dust and odor complaints from project abutters and regulatory agencies. Experience with a pilot project that retrofitted 83 pieces of equipment working on the Central Artery/Tunnel (CA/T) project showed that: **NPC36**

- vehicles did not experience significant power loss;
- there are no additional operation and maintenance (O & M) or fuel costs; and
- engine manufacturers continue to honor vehicle warranties.

We ask that the proponents contact Steven G. Lipman, P.E. of DEP to discuss the CACI and how it might be used to minimize adverse construction impacts from the project. Mr. Lipman can be contacted at 617-292-5698.

Allowed Construction Hours

In order to balance the need to construct and develop with the rights of residents, the City of Boston limits construction hours to 7:00 AM to 6:00 PM, Monday through Friday. **NPC37**

We request, should the proponents decide to seek an extension of these hours, that the APCC be notified at 617-635-3850.

Worker Transportation

Roadways in the project area experience significant congestion daily. This factor, in addition to vehicle-related air quality and quality of life issues unrelated to time of day, suggest that transportation demand management (TDM) should be implemented during the construction phase of the project. This issue is not addressed in the NPC. **NPC38**

Historic Resources

Franklin Park, a local landmark also listed on the National Register of Historic Places (National Register), is not identified in the NPC. Staff of the Boston Landmarks Commission (BLC) are concerned about the potential noise, vibration, visual and air quality effects that may accompany significant numbers of buses on non-revenue trips through this landmark. Because the park is an historic resource the MBTA must assess the impacts of the proposed project and explore alternatives. **NPC39**

Information necessary for a complete assessment includes the total number of buses from all routes that the MBTA proposes to deadhead through the park each day and the times of day that these buses will use this route.

A primary concern of the BLC is that implementation of this proposal will further erode the nature of Circuit Drive as a roadway through a country park and establish it, inappropriately, as a major thoroughfare.

The existing building at the project site should not be demolished without prior approval from the BLC. The proponent should contact Colleen Meagher at 617-635-3850 regarding a filing under Article 85, the City's Demolition Delay ordinance. **NPC40**

BLC staff agree with BRA Urban Design staff that projects in the City should be constructed with traditional building materials and techniques rather than synthetic composite materials. Simulated materials such as exterior insulated finish systems (EIFS) and glass fiber reinforced concrete (GFRC) are inconsistent with Boston architecture and are unlikely to withstand decades of the City's freeze-and-thaw climate. **NPC41**

The BLC requests that dated cornerstones be incorporated into all new construction. This element will allow those who are attentive to and value the architecture of the City to appreciate the historical context in which structures were conceived. **NPC42**

Transportation and Environmental Consequences

Evidence shows that there are numerous environmental benefits to reducing the number of motor vehicles driven in the City of Boston at any time of the day or night. Motor vehicles emit 64 percent of the carbon monoxide (CO) in our country's air, 35 percent of the oxides of nitrogen (NO_x) and 27 percent of the volatile organic compounds (VOCs). NO_x and VOCs combine to create ground level ozone, a significant contributor to human respiratory illness. Vehicle trips, regardless of time of day, increase noise, congestion and degrade the quality of life in any neighborhood. In addition to the standard air

pollutants caused by motor vehicles (CO, VOCs, NO_x and particulates), they may also leak or deposit rubber, lead, zinc, copper, cadmium, chromium, ethylene glycol and petroleum products. These contaminants affect air quality, water quality and land quality. (See Opportunities to Improve Air Quality through Transportation Pricing Programs, USEPA, EPA 420-R-97-004, 1997.)

One of the primary goals of this department is to improve air quality. Reducing the number of single occupant vehicles (SOVs) entering and leaving the city is not only related to traffic impacts but is essential to air quality improvement and quality of life. As such, we are committed to seeing that all effective steps are taken to encourage transit and HOV use by commuters, including construction workers, and residents.

We question why the MBTA expects 90 percent of its employees at this facility to drive to work and will provide parking spaces for each employee and for each MBTA Police Officer. A parking space for every employee was also described in environmental documents regarding the Orient Heights Car Yard and Maintenance Complex in East Boston, a facility located directly adjacent to the Orient Heights Blue Line station. While we appreciate that many bus drivers will not have a transit option for commuting, we question why police, administrative and maintenance staff can not access public transit. Promoting the use of high occupancy vehicles (HOV) for all categories of employees should be policy and practice. The MBTA should institute a plan at this facility to minimize the use of SOVs by employees and maximize transit and HOV use. **NPC43**

Thank you for the opportunity to offer comment. We look forward to further information and analyses.

Sincerely,

Antonia M. Pollak
Director

cc: Andrea d'Amato, Chief of Environmental Services
Charles Jewell, Boston Water and Sewer Commission
Vineet Gupta, Director of Policy and Planning, Boston Transportation Department

MBTASouthampton.doc.AMP:MTZ.mtz

City of Boston
The Environment Department

Comment NPC25: The department requests that the proponent examine alternatives to non-revenue trips to and from Forest Hills through Franklin Park.

Response: In an attempt to accommodate the City of Boston and the neighborhood in Jamaica Plain, the proposed facility at Arborway has been reduced to the greatest extent possible. One of the major ways the MBTA accommodated this reduction was to move the vehicles that serve the Silver Line and the vehicles that serve the Arborway #39 route over to the Southampton Street maintenance facility. By doing this, the best route to get vehicles from the Southampton Street facility to Arborway/Forest Hills is to run them in non-revenue service through Franklin Park. Any other route would require significant rerouting through the city and through Dudley. The MBTA believes that this is not only operationally too cumbersome, but fuel inefficient. As a result, the MBTA believes that the best route is the route through Franklin Park. The MBTA will work with, however, the City of Boston Landmarks.

Comment NPC26: The NPC identifies only construction-related impacts to business activity in the project area. The owners of businesses in the Newmarket area have expressed concern that the added bus traffic will hinder trucker access to loading/delivery areas, particularly in the early morning when the majority of deliveries are conducted. This department is concerned that such conflicts will increase truck idling the area, further degrading air quality. This issue deserves analysis and mitigation if appropriate.

Response: Subsequent to the NPC filing, a supplemental traffic analysis report was performed. It was presented to the public design review process identified in the response to Comment NPC1 at a July 17, 2001 meeting attended by representatives of the NBA, City of Boston, BTD, BRA, and the MBTA. The number of buses added to the general traffic will not significantly impact truck operations. Buses return to the site incrementally, and the orientation of the site driveway allows buses to enter/exit the traffic stream quickly. During the early morning hours, the traffic on Southampton Street is significantly less than the peak commuter hours. Videotaped observations from 4:30 to 7:30 a.m. indicated ample, large gaps in

traffic that will allow buses to operate without causing extra idle time for trucks.

Also, Chapter 90 Section 16A of the General Laws of Massachusetts does not allow motor vehicles to idle in excess of five minutes. Any trucks waiting more than five minutes to engage in the delivery of goods should not have the vehicle's motor running.

Comment NPC27: The NPC does not acknowledge that mechanical systems are a source of air pollutants and does not discuss the ways in which pollutants from stationary sources can be minimized.

Response: The boilers, hot water heaters, and make-up air heaters are all high efficiency commercial gas fired pieces of equipment, which meet Massachusetts code requirements. The existing emergency generator and new emergency generator meet Mass EPA requirements. A special vacuum system has been provided for the bake grinding and bodywork areas to control emissions.

Comment NPC28: The parking garage should have Carbon Monoxide (CO) monitors that have direct read meters as well as visual and audio alarms.

Response: The parking garage is an open structure and does not require carbon monoxide monitoring. The motorcycle storage area, which is enclosed, is provided with carbon monoxide monitoring with alarms.

Comment NPC29: We strongly recommend that the proponent participate in the U.S. Environmental Protection Agency's (EPA) Energy Start/Green Lights program and consider using the Leadership in Energy Environmental Design (LEED™) standards for the project [including lighting systems, glazing, heating systems, and roofing materials].

Response: The maintenance facility has been designed to meet the minimum energy code standards required in the Massachusetts State Building Code, 6th Edition (updated).

Comment NPC30: Careful choices should be made about exterior project lighting. It should serve operational and security needs while not adding to light pollution. Fixtures should be downward directed or shielded.

Response: The yard lighting was designed for the maintenance facility to minimize light pollution by using downward directed fixtures. Wherever possible, building mounted fixtures were utilized, elsewhere pole-mounted fixtures were used.

Comment NPC31: The project is subject to the *Regulations for the Control of Noise in the City of Boston* (Regulations) and must meet the residential levels. We remind the proponent that emergency generators are subject to

the Regulations. All exterior mechanical equipment and other noise-producing activities must be attenuated or managed to comply with the Regulations.

Response: The site is not in a residential zone and noise studies have been performed to determine the acceptable commercial noise levels. The gas compressors are being located in a noise reduction enclosure. All other exterior equipment will be in compliance with commercial noise criteria. No special noise management is needed beyond that in the design.

Comment NPC32: Adequate, convenient space should be made available at the project for recycling to maximize rates. In accord with City objectives, it is essential that both the residential and retail space be designed with adequate sorting, storage and pick-up space for recyclables in anticipation of increasing rates over the operational life of the project.

Response: The maintenance facility does not fall within the referenced "residential and retail" use. However, efforts to recycle and to minimize waste are incorporated into the maintenance facility, including buswash water, vehicle fluids, brake pads, oil filter crusher, as well as space for recycling office and lunch room waste.

Comment NPC33: We hope that the proponent will help to educate the public and further improve the water quality of local water bodies by agreeing to the permanent installation of plaques at all storm drains that bear the warning "Don't Dump - Drains to Boston Harbor."

Response: Via management practices and procedures, MBTA mechanics are required to dispose of oils and fluids in a prescribed manner. All waste oil, used antifreeze, and parts cleaning fluids are disposed in sealed tanks. Also, all floor drains discharge to an oil-water separator. Therefore no plaques are required.

Comment NPC34: Street and sidewalk cleaning should be done at least weekly and a vacuum sweeper should be used to prevent the transport of sediment onto city streets and into the stormwater system.

Response: The MBTA will develop a stormwater pollution prevention plan (SWPPP) for the facility. This SWPPP will include good housekeeping and best management plans.

Comment NPC35: A wheel wash should be used at each vehicular exit from the project to prevent the tracking of dust, mud and other materials onto city streets.

Response: The construction contract requires the Contractor to control dust and decontaminate equipment and vehicles, prohibits spillage onto

streets and requires wheel washers at each construction exit. During operation, the maintenance facility will utilize a bus wash to clean the buses as needed prior to entering public streets.

Comment NPC36: The CACI [Clean Air Construction Initiative] offers contractors a cost-effective way to decrease localized adverse impacts and reduce dust and odor complaints from project abutters and regulatory agencies. ... We ask that the proponents [work with DEP to determine how the CACI] might be used to minimize adverse construction impacts from the project.

Response: The MBTA included the construction equipment retrofit requirement in this and all other MBTA construction project specifications.

Comment NPC37: In order to balance the need to construct and develop with the rights of residents, the City of Boston limits construction hours to 7:00 a.m. to 6:00 p.m., Monday through Friday. We request, should the proponents decide to seek an extension of these hours, that the APCC be notified ....

Response: The construction contract restricts the Contractor to working Monday through Friday, excluding holidays, between the hours of 7:00 a.m. to 3:30 p.m. The Contractor is responsible for obtaining the required permits from the City of Boston and any other regulatory agency that has jurisdiction for any deviation from these hours.

Comment NPC38: Roadways in the project area experience significant congestion daily. This factor, in addition to vehicle-related air quality and quality of life issues unrelated to time of day, suggest that transportation demand management (TDM) should be implemented during the construction phase of the project.

Response: The MBTA will develop construction management plans which will include traffic management.

Comment NPC39: Franklin Park, a local landmark also listed on the National Register of Historic Places (National Register), is not identified in the NPC. Staff of the Boston Landmarks Commission (BLC) are concerned about the potential noise, vibration, visual and air quality effects that may accompany significant numbers of buses on non-revenue trips through this landmark. Because the park is an historic resource the MBTA must assess the impacts of the proposed project and explore alternatives. Information necessary for a complete assessment includes the total number of buses from all routes that the MBTA proposes to deadhead through the park each day and the times of day that these buses will use this route. A primary concern of the BLC is that implementation of the proposal will further erode the nature of Circuit Drive as a roadway through a country park and establish it, inappropriately, as a major thoroughfare.

Response: See the response to Comment NPC25.

Comment NPC40: The existing building at the project site should not be demolished without prior approval from the BLC.

Response: The MBTA received prior approval to demolish the existing buildings at Southampton Street. This approval was received during the environmental review for the MBTA Police Headquarters on the site.

Comment NPC41: BLC staff agree with BRA Urban Design staff that projects in the City should be constructed with traditional building materials and techniques rather than synthetic composite materials. Simulated materials such as exterior insulated finish systems (EIFS) and glass fiber reinforced concrete (GFRC) are inconsistent with Boston architecture and are unlikely to withstand decades of the City's freeze-and-thaw climate.

Response: As commented by BLC staff and BRA Urban Design Staff regarding façade materiality, the maintenance facility design has utilized traditional building materials. EIFS has been utilized only as a ceiling treatment above the bus storage area. The EIFS ceiling is not exposed to views by the general public and is protected from the weather. It was used primarily for cost-effectiveness and fire rating purposes; therefore, the use is justified and consistent with the BRA's design objectives for material use in the urban realm. GFRC has not been utilized.

Comment NPC42: The BLC requests that dated cornerstones be incorporated into all new construction.

Response: The BLC request for a dated cornerstone has not been incorporated in the construction documents.

Comment NPC43: We question why the MBTA expects 90 percent of its employees at this facility to drive to work and will provide parking spaces for each employee and for each MBTA Police Officer. ... While we appreciate that many bus drivers will not have a transit options for commuting, we question why police, administrative and maintenance staff cannot access public transit. ... The MBTA should institute a plan at this facility to minimize the use of SOVs by employees and maximize transit and HOV use.

Response: The MBTA assumed the 90 percent employee mode share in order to provide the most conservative impact analysis. While it is difficult for many facility employees to use transit (since many are required to arrive before service begins or after service ends), there are employees who will utilize transit. The MBTA will work with its employees to find ways to maximize use of transit to the site.

626 1181

CITY OF BOSTON · MASSACHUSETTS

OFFICE OF THE MAYOR
THOMAS M. MENINO

May 16, 2001

Robert H. Prince, Jr.
General Manager
Massachusetts Bay Transportation Authority
Ten Park Plaza
Boston MA 02116

Dear Mr. Prince:

NPC44

I am writing to request the MBTA to establish a design review public process involving local businesses and community representatives for the proposed Silver Line Maintenance Facility on Southampton Street in Boston.

The Southampton Street facility is key to the successful completion of the ongoing Silver Line project. When complete the Silver Line will add new bus rapid transit service to connect our neighborhoods and will bring to fruition the MBTA's commitment to introduce cleaner-fuel vehicles into their fleet. Over the last several years the City of Boston has worked closely with the MBTA on the project citywide and looks forward to the completion of both the Washington Street and South Boston elements of the service.

For new service to be effective, however, its associated facilities must be good neighbors in their host communities. The Newmarket area is a thriving small-business district, vital to Boston's economy, providing approximately 15,000 jobs. I am committed to protecting and expanding this unique resource within the city. Therefore it is critical that the proposed maintenance and storage facility be designed with the respectful participation and consent of the local community.

I urge you to begin a public design review process involving all the concerned parties immediately. The focus of this effort should be to design a non-intrusive facility, with managed transportation access, that can operate in harmony with the ongoing functioning and needs of the Newmarket district. The effort should be initiated with an agenda and time line agreed to by all.

I have asked the Boston Transportation Department to assist in the analysis and coordination of this effort on behalf of the City of Boston. I look forward to continuing to work with the MBTA on projects that will contribute positively to the economic growth of the Boston region.

Sincerely,

Thomas M. Menino
Mayor

City of Boston
Office of the Mayor
Thomas M. Menino

Comment NPC44: I am writing to request the MBTA to establish a design review public process involving local businesses and community representatives for the proposed Silver Line Maintenance Facility on Southampton Street in Boston. ... The focus of this effort should be to design a non-intrusive facility, with managed transportation access, that an operate in harmony with the ongoing functioning and needs of the Newmarket district. The effort should be initiated with an agenda and timeline agreed to by all.

Response: The MBTA met frequently with representatives of the City of Boston and the Newmarket Business Association. These meetings occurred during the comment period on the NPC and continued for several months afterward. Through this process, the MBTA looked at alternative entrance and egress points and performed more refined traffic analysis. The meetings were part of a positive interacting process. While certainly not all of the participants were able to achieve everything they wanted, the MBTA made changes to accommodate some issues, and better explained why other requests could not be granted.

BG

Clean Buses for Boston
Federation for Public Transit

RECEIVED

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MEPA

May 15, 2001

Secretary Robert Durand
Executive Office of Environmental Affairs
MEPA Unit
251 Causway Street – 9th Floor
Boston, MA 02114

Mary Beth Mello
Federal Transit Administration
55 Broadway
Cambridge, MA 02142

Re: Environmental Assessment/Notice of Project Change Notice
Silver Line Maintenance Facility on Southampton Street
EOEA #6826 and EOEA #11707

Dear Secretary Durand and Ms. Mello,

The Clean Buses for Boston Coalition (CBB) is a coalition of environmental, public health and community organizations committed to the conversion of the MBTA's bus fleet from diesel fuel to cleaner alternatives and improved public transit in Boston's urban communities. CBB is a member of the Federation for Public Transit (FPT), a network of more than one dozen organizations dedicated to transit justice and first-class public transportation in Greater Boston. This letter represents the position and comments of both coalitions.

CBB and FPT are both opposed to the Southampton Facility as it is proposed and urge you to require additional environmental review of this project. Specifically, CBB and FTP urge you to require the MBTA to complete a comprehensive, long-term plan for garaging their entire bus fleet as part of this review. The plan should show that the MBTA has taken all opportunities to ensure that environmental impacts are minimized system-wide and that no one community has been asked to bear a disproportionate amount of the negative impacts of our public transit system.

CBB and FTP believe we need an equitable, regional bus garage plan and NOT another bus facility in the City of Boston for the following reasons:

- **MEPA requires MBTA to assess the environmental impacts of its bus garage plans as a whole, rather than segmenting each proposed and existing facility into isolated analyses.** As clearly indicated in MBTA's Capital Investment Program (CIP), the T is not contemplating the proposed Southampton facility in isolation; rather, it is part of a larger project plan of bus garage improvements - including Arborway Bus Garage - Phase I and conversion of other existing bus facilities to CNG facilities. MBTA CIP, FY01-06 at II-63 (approved April 5, 2001). The

NPC45

c/o ACE, 2343 Washington St., 2nd Fl., Roxbury, MA 02119 • 617-442-3343

environmental impacts of these facilities are inextricably linked because choices about the number and type of vehicles at one facility directly impact the size, necessity, and impacts of other MBTA bus facilities. For this reason, the MBTA's entire scheme of bus maintenance facilities is one Project subject to MEPA jurisdiction. MEPA regulations state that "[i]n determining whether a Project is subject to MEPA jurisdiction . . . the Secretary shall consider the entirety of the Project, including any likely future expansion, and not separate phases or segments thereof." 310 CMR 11.01(2)(c). Further, MEPA explicitly warns that "[a] Proponent may not phase or segment a Project to . . . curtail MEPA review." Id. Yet that is exactly what MBTA is attempting to do by defining "the Project" as the Southampton Street facility in isolation.

Moreover, limiting MEPA review to the proposed Southampton facility would frustrate another purpose of the statute: full consideration of alternatives. Under MEPA, an EIR must contain "an analysis of the feasible alternatives in light of the objectives of the Proponent and the mission of any Participating Agency . . . ." 310 CMR 11.07(6)(f). Clearly, "the objectives of the Proponent" extend far beyond the Southampton facility. The relevant MBTA "objective" is to devise a Project to host all the buses in its current and future fleet, and so MEPA review must comport with the scope of this objective.

Similarly, the objectives of at least one Participating Agency also extend beyond the Southampton facility. The Department of Environmental Protection is responsible for ensuring that the MBTA comply with its commitment to purchase 358 alternative fuel buses as part of the September 1, 2000 Adminstrative Consent Order on Central Artery mitigation. As recognized in the ACO itself, securing adequate facilities for all these buses is a crucial precondition for MBTA to fulfill this commitment. Yet the Southampton facility does not secure housing for all these buses, nor does the Arborway facility. Accordingly, the Secretary must use his authority to ensure that the Project review is extended to all MBTA bus facilities in order to preserve the legitimate objectives of DEP as a "Participating Agency." Id.

- **The MBTA has done no system-wide planning for garaging its bus fleet that might identify less-impact alternatives.** For instance, the MBTA has a storage facility in Watertown that is currently unused. Were the MBTA to garage suburban commuter buses currently garaged at the Albany Street garage (specifically the suburban express routes from Watertown, Brighton Center and Newton) at the Watertown facility, dead-head miles through the City of Boston would be significantly reduced. Now, these buses drive through the City "Out of Service" spewing diesel exhaust into neighborhoods that they do not benefit. Moving them to a facility closer to the start of their routes like that located in Watertown would not only reduce dead head miles, but might also allow room for new buses for the so-called Silver Line and South Boston Transitway at the Albany Street garage making the Southampton facility completely unnecessary. Further, if the MBTA were to retrofit the Albany garage to accommodate the clean-fuel buses currently proposed for the so-called Silver Line, the Albany facility would also meet the MBTA's long-term needs for garage space for clean fuel bus purchases required by the ACO (see below). To date, the MBTA has not done any system-wide analysis that may identify these "win-win" solutions. We urge you to require the MBTA to complete a full, long-term, comprehensive bus garage plan as part of the environmental review for the proposed Southampton Street facility that minimizes the MBTA's environmental impacts system-wide. **NPC46**

- **The MBTA's current bus garage system is unfair and unjust.** Almost all of the MBTA's bus garage and maintenance facilities are located in low income communities or communities of color. As a result, the impacts of these facilities have fallen most on these populations. The **NPC47**

MBTA moved the proposed Southampton Street facility from its original location at West First Street in South Boston to the Southampton facility in order to reduce impacts to a residential neighborhood. However, the Southampton facility is still located in the heart of the city a very short distance from Andrew Square and Roxbury residences. We urge you to require that the part of the environmental review for the proposed Southampton facility be an analysis of the environmental justice implications of the MBTA's bus garage plans system-wide, both current and future. The MBTA's long-term plans for garaging its bus fleet should not only minimize environmental impacts, but also ensure that no one neighborhood or community be asked to bear a disproportionate amount of the burden for our public transit system.

MEPA Requires MBTA to Include Environmental Justice in its EIR. Environmental justice requires that no community bear a disproportionate burden in the placement of transportation infrastructure, including bus facilities. As a recipient of FTA funds, MBTA is bound by the U.S. Department of Transportation's environmental justice policy, which forbids recipients from imposing undue transportation burdens on communities of color and low income communities. Similarly, EOEA is a recipient of U.S. EPA funding, and it is similarly bound by that agency's Title V and environmental justice regulations to ensure that its decisions do not, by error or omission, impose a disproportionate burden on such communities. In light of these twin obligations, it follows logically that the Secretary is authorized, if not required, to order MBTA to evaluate the environmental justice impacts of its bus facilities Project.

- **The MBTA must keep its commitment to purchase 358 clean-fuel buses over the next three years.** In September 2000, the Department of Environmental Protection required the MBTA to purchase 358 clean-fueled buses by 2003 to mitigate air pollution from Central Artery traffic. According to the Administrative Consent Order signed by the two agencies, the first 124 of these buses were ordered in December 2000 and the next order must be placed by December 2001. However, the Order has a loophole through which DEP can allow the MBTA to delay purchase of these buses if it has not secured locations for new maintenance facilities. We are opposed to any delay that would keep dirty diesel buses on the road any longer than necessary. The MBTA must plan for locating these new buses as soon as possible. This will likely necessitate retrofitting an existing facility to accommodate clean fuel buses. Before building an entirely new facility that will have serious traffic impacts, the MBTA should determine its overall needs for its bus fleet in the long-term and explore alternatives that would be less costly, reduce dead-heading, and improve environmental conditions overall. **NPC48**

- **The MBTA must prioritize use of new buses on routes in communities most impacted by air pollution and asthma.** As you know, Boston's neighborhoods are severely affected by asthma. Diesel exhaust triggers asthma and other respiratory illnesses and every day they are on the road has significant impacts on the residents of these neighborhoods. The MBTA must prioritize use of the new buses on routes in communities most impacted by air pollution and asthma. A plan for garaging new buses must take this into account. Building a new facility without having thought through this issue is short-sighted and could preclude use of the new clean buses on routes where they are needed the most. **NPC49**

- **Bus "dead-heading" must be minimized wherever possible.** One of the major reasons residents have advocated for the closure of Bartlett Bus Depot in Roxbury is to minimize "dead-heading" on Washington Street. Every day, 400 out-of-service buses travel through Egleston Square on their way to the Bartlett Bus Depot. These buses, many of start their routes at Forest Hills, have serious and harmful effects on the air between Dudley and Forest Hills, especially Egleston Square. Closing the Bartlett Bus Depot and replacing the facility with a cleaner, more **NPC50**

well managed facility at Arborway will reduce about 550 dead-head miles daily and improve air quality in Egleston Square significantly. There may be similar opportunities to reduce dead-head miles in other areas throughout the city. Only a comprehensive, system-wide bus garage plan would ensure that dead-head miles are minimized.

- **Plans for the new bus facility on Southampton Street are unclear.** The MBTA says the Southampton facility has become necessary in order to garage new 60' articulated CNG buses for use on the Washington Street portion of the so-called Silver Line and on the #39 bus and dual-mode diesel/electric buses for the South Boston Transitway. Now we understand that these 60' vehicles may not even be plausible and 40' vehicles will be used in their place. Residents have advocated for 13 years that replacement service on Washington Street for the old elevated Orange Line be light rail, not buses, and that this Light Rail continue through the South Boston Transitway portion of the Silver Line as well. There has been general consensus from participants in the Roxbury Master Planning process that light rail is the best option for Washington Street. Similarly, residents in Jamaica Plain have advocated for the return of light rail on the Arborway line to replace the #39 bus and are in the process of legally challenging the MBTA's decision not to return light rail to Centre Street. Members of the Community Planning Committee for the Arborway Yard have even left space in their proposed design of the Arborway facility for light rail vehicles for Arborway. Without #39 buses and without buses for the Silver Line and South Boston Transitway, the need for the Southampton facility is in question. A full environmental review of this project must also demonstrate a clear need for the proposed Southampton Street facility. **NPC51**

  The EIR/PCN must be revised to address the likelihood that the Southampton facility will preclude future conversion of the Silver Line to light rail. In previous certificates, the Secretary has expressed concern that the Silver Line not be implemented in a manner that would preclude future conversion of Washington Street service to LRV. However, as a practical matter, making Southampton Street the home of Silver Line vehicles appears to foreclose such an option. MBTA has yet to explain how future light rail vehicles could be transported from Southampton Street into service on Washington Street. Absent such an explanation, it is unclear how MBTA could convert Washington Street to LRV, unless it has a separate, new vehicle facility in mind. No such facility has been evaluated as part of this Environmental Impact Report/Project Change Notice (EIR/PCN), nor has it been included in any alternatives analysis on previous Silver Line reports to EOEA. In short, MBTA has no clue where it would store LRVs for Washington Street, and completion of the Sourthampton facility makes such an option all the less likely. As such, EOEA must seek answers to this problem now, before the Secretary's previous warnings not to preclude LRV are rendered moot.

- **There has been no community planning process for this facility.** Over the last 18 months, the MBTA has been involved in an extensive planning process for their new facility at the Arborway in Jamaica Plain. Residents involved in the Community Planning Committee for the Arborway Yard (CPCAY) developed a series of more than 40 recommendations that, after negototiations with the city of Boston and the MBTA, will dictate the size, shape and impacts of the new facility. Every community should have the same opportunity to participate in planning for new bus garage facilities in their neighborhood. To date, the MBTA has done no planning with local residents or businesses for the proposed Southampton facility. Additional environmental review of this project will ensure residents and businesses that have been excluded from the process to date to an opportunity to analyze the potential impacts of the proposed facility and a forum to voice their concerns and knowledge about the location. **NPC52**

- **Bartlett Bus Depot must be closed as promised to the community.** The MBTA has promised residents of Roxbury that once the Arborway Garage is completed, the Bartlett Bus Depot will be closed. The Bartlett Bus Depot has been an eyesore and a pollution source in Roxbury for 20 years. It is overcrowded and managed poorly. CBB and FPT have advocated for the closure of this facility for more than three years. Despite their promise, key MBTA officials have mentioned at meetings and in other discussions with CBB members that if 124 buses are not sited at the Arborway facility in Jamaica Plain, Bartlett may not be closed. Rather, Bartlett Bus Depot might be renovated into a CNG facility. Purchasing the first 124 – 180 clean buses need not be inconsistent with closing Bartlett Bus Depot, or with following the recommendations outlined by Community Planning Committee for the Arborway Yard. There are likely opportunities to house buses currently at Bartlett at other garages like Albany or Cabot. Those facilities could even be retrofitted to accommodate the needs of CNG vehicles. Only by reviewing the MBTA's plans for garaging its *entire* fleet can an equitable, plausible plan be devised that minimizes dead-heading, ensures that no on community bears a disproportionate amount of the burden for our public transit system, and ensures that the Bartlett Bus Depot is closed as was promised

NPC53

In closing, we would like to reiterate our request that you require additional environmental review for this project. In addition to our concerns listed above, representatives of the Newmarket Business Association voiced some clear issues with the proposed project that would interfere with their ability to do business at the public hearing on Thursday, May 10th.

Please do not hesitate to contact either of us with any questions regarding these comments (Jodi Sugerman-Brozan, 617-442-3343 x23 and Bob Terrell, 617-445-1999).

Sincerely,

Jodi Sugerman-Brozan
On behalf of CBB

Bob Terrell jsb
Bob Terrell
On behalf of FPT

Members of Clean Buses for Boston and the Federation for Public Transit include:

Alternatives for Community & Environment
Arborway Committee
Bikes Not Bombs
Bowdoin Street Health Center
Committee for Boston Public Housing,
Egleston Square Neighborhood Association
Fenway Action Coalitoin
Four Corners Action Coalition
Massachusetts Public Interest Research Group
Sierra Club
South Boston Environmental Health Watch
Transit Riders Union (TRU)
Union of Concerned Scientists
Washington Street Corridor Coalition

cc: President, Newmarket Business Association
General Manager Robert Prince, MBTA
Michael Mulhern, MBTA
Representative Gloria Fox
Senator Diane Wilkerson
Senator Stephen Lynch
Representative Jim Hart
City Councilor Chuck Turner
City Councilor Jim Kelly

Clean Buses for Boston/ Federation for Public Transit

Comment NPC45:	MEPA requires MBTA to assess the environmental impacts of its bus garage plans as whole, rather than segmenting each proposed and existing facility into isolated analyses.
Response:	Neither the MEPA regulations nor the act's implementing statute require this level of review. The planning activities of a facility and its corresponding impacts may be subject to MEPA review, but not the overall master plan of a system as large as the MBTA bus system.
Comment NPC46:	The MBTA has done no systemwide planning for garaging its bus fleet that might identify less-impact alternatives.
Response:	The MBTA has initiated a systemwide planning study designed to examine future bus facility needs. The Silver Line maintenance facility is an isolated issue due to its direct link to a fixed route.
Comment NPC47:	The MBTA's current bus garage system is unfair and unjust. ... MEPA requires MBTA to include environmental justice in its EIR.
Response:	The bus maintenance facility planning study will examine issues of environmental justice and impacts to residential areas. This is not, however, a document subject to MEPA review.
Comment NPC48:	The MBTA must keep its commitment to purchase 358 clean-fuel buses over the next three years.
Response:	The MBTA fully intends to fulfill this commitment.
Comment NPC49:	The MBTA must prioritize use of new buses on routes in communities most impacted by air pollution and asthma.
Response:	The MBTA plans on using the new CNG buses on the most highly utilized urban routes.
Comment NPC50:	Bus "dead-heading" must be minimized wherever possible.
Response:	The MBTA agrees. Dead-heading minimization is now a major objective for facility siting and bus routing.

Comment NPC51: Plans for the new bus facility on Southampton Street are unclear. ... The EIR/PCN must be revised to address the likelihood that the Southampton Street will preclude future conversion of the Silver Line to light rail.

Response: The Southampton Street maintenance facility in no way precludes conversion to rail. If and when the Silver Line is converted to rail, a maintenance facility will be built directly connected to the corridor (as are all other rail maintenance facilities). At that point, Southampton Street can still be used for other MBTA buses.

Comment NPC52: There has been no community planning process for this facility.

Response: The MBTA believes the planning process to date has been adequate.

Comment NPC53: Bartlett Bus Deport must be closed as promised to the community.

Response: The MBTA agrees. Closing Bartlett Street can occur when the Arborway facility is opened. This facility will be the subject of a separate MEPA filing. The MBTA remains firmly and enthusiastically committed to this promise.

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

BG

JANE SWIFT
Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

RECEIVED
MAY 16 2001
MEPA

May 15, 2001

Jay Wickersham, Director
MEPA Unit
Executive Office of Environmental Affairs
251 Causeway Street, 9th Floor
Boston, MA 02114-2150

Attention: William Gage

Re: MBTA, Silver Line Project
- EOEA #6826-South Boston Piers Transitway
- EOEA #11707-Washington Street/Silver Line Transit Service and Roadway Improvements
Environmental Assessment and Notice of Project Change

Dear Mr. Wickersham:

The Department of Environmental Protection (DEP) has received and reviewed the following joint Environmental Assessment/Notice of Project Change filing by the MBTA for its Silver Line Project:

(1) EOEA #6826-South Boston Piers Transitway; and

(2) EOEA #11707-Washington Street/Silver Line Transit Service and Roadway Improvements

The documents include a Revised Annual Update for the Silver Line Project filed pursuant to Chapter 30, Section 61 of the MEPA regulations, and a siting assessment for the Silver Line Maintenance Facility. This correspondence includes DEP's consolidated comments on this joint MEPA filing.

Silver Line Maintenance Facility

Introductory Comment

The MEPA filing states that it has determined that a consolidated vehicle fleet maintenance facility to handle three separate, but related, projects; (1) South Boston Piers Transitway, (2) Washington Street Replacement Service, and (3) Massport AITC will improve overall services and that the facility be located at a mainly MBTA-owned site on Southampton Street, Boston.

DEP Comments

(1) On-Site Soil and Groundwater Contamination

(a) The MBTA document states that the two parcels which make up the Southampton Street proposed location are listed as Disposal Sites under c. 21E and the Massachusetts Contingency Plan (MCP) @310 CMR 40.0000 and that subsurface sampling indicates the existence of "separate phase hydrocarbons" and areas of significant soil contamination, mainly; lead, total petroleum hydrocarbons (TPH) and polychlorinated biphenyls (PCBs), including at least one area with lead concentrations in excess of the MCP Upper Concentration Limit (UCL). The report estimates that up to 20% of the soil expected to be removed from the parcels to allow for construction of the facility could fail the Toxicity Characteristic Leaching Procedure (TCLP) test, potentially requiring it to be managed as a characteristic hazardous waste.

During the development of the South Boston Piers Transitway Project, the MBTA and DEP executed a Special Procedures Determination under the MCP for management of Oil and Hazardous Materials (OHM) encountered during the project. That agreement ensured close coordination and cooperation among DEP, the MBTA and its consultants/contractors. DEP will discuss with the MBTA the potential for a similar type of cooperative agreement for the work to be performed at the Southampton Street facility **NPC54**

(b) One specific action that the MBTA should consider is to treat the TCLP soils to remove the "hazards characteristic" prior to its removal from the Site. Such actions have been used successfully on the Central Artery/Tunnel Project, and in February 13, 2001 correspondence to the MBTA, DEP approved its use under contract E02CN15 of the South Boston Piers Transitway Project. **NPC 55**

(c) DEP wants to stress the importance of the MBTA properly manage the removal and disposal of lead-based paint and asbestos from the Mercedes Building located on the MBTA Site, which the reports states will need to be demolished as part of this project. The management of these types of hazardous materials has been a problem at other MBTA projects. **NPC56**

Air Quality

(2) As MEPA is aware, concerns exist relative to adverse impacts of emissions from both stationary and mobile diesel-powered facilities and equipment and that there are ongoing efforts DEP and various state agencies to significantly reduce such emissions.

Many of these efforts are included in DEP's September 1, 2000 Determination relative to the Massachusetts Highway Department's Amendments to its Preconstruction

Certification for the Central Artery/Tunnel Project pursuant to 310 CMR 7.38(2) and delays and/or substitutions of projects under the "Transit Regulations" at 310 CMR 7.36, which include a series of actions required by the MBTA.

The facilities proposed by the MBTA for incorporation into the Southampton Street facility will provide the requisite infrastructure (e.g. alternative fuel facilities) to allow the MBTA to meet the commitments included in DEP's September 1, 2000 Determination.

(3) The report (page 5-14) states,

"The specifications for both the site preparation contract and the facility construction contract will include a requirement that all off-road diesel construction equipment must have emission control devices installed, such as oxidation catalysts or particulate filters on the exhaust system side of the diesel combustion engine equipment. This equipment is identical to equipment required as part of the CA/T construction retrofit program. This equipment, as articulated in the Transit Commitment agreement between DEP and EOTC, will be part of all new construction projects performed by the MBTA as well as the Massachusetts Highway Department."

DEP would like to indicate its appreciation to the MBTA and the Executive Office of Transportation and Construction (EOTC) for working cooperatively with the Executive Office of Environmental Affairs (EOEA) and DEP to implement actions to reduce contaminants from diesel emissions from its public transportation operations and construction projects, the above retrofit activity being just one element of a comprehensive emissions control program.

DEP strongly believes that such actions will significantly benefit the residents of the Commonwealth, particularly those living and working near MBTA facilities and along its transportation corridors.

Water and Wastewater Systems

(4) DEP supports MBTA's proposals to incorporate reuse and recycle technologies into the water and wastewater systems proposed for the facility, an example being the "bus wash wastewater system" which includes a degreasing power-wash designed to recover 100 percent of the wash water (page 5-9).

Silverline Annual Update

General Comments

The Annual Update for the South Boston Transitway and Washington Street/Silver Line Transit Service includes the final report of a Peer Review Panel convened to review and make recommendations on the Neoplan buses for the South Boston Transitway. Based on this report, Section 3.0 of the Annual Update offers an emissions control plan for the buses. The MBTA is committing to a program to minimize bus emissions including the use of ultra low sulfur diesel (ULSD) fuel, the installation of Johnson Matthey CRT™ diesel particulate filters (DPF) when

the buses are delivered for service, and the installation of Johnson Matthey SCRT™ devices to reduce nitrogen oxides (NOx).

The MBTA's plan for the Transitway Neoplan buses is a new approach designed to ensure that transportation demand is met for the rapidly developing South Boston waterfront area while minimizing air quality impacts. As such, DEP supports an ongoing emissions testing and monitoring program to track the performance of the buses. DEP also points out that bus and emissions technology will continue to advance both in the short- and long-term. Future annual updates should track and report on these advancements, particularly as the MBTA plans for the future connection between Washington Street and the Transitway.

Specific Comments

The MBTA indicates it will enter into a contract with Neoplan to provide vehicle and emissions systems support. Given that Johnson Matthey (JM) will be needed to provide key support on the emissions control devices and Neoplan is not expert in these devices, JM should be tied contractually to provide support as well. The MBTA also plans to equip the buses with monitoring equipment. The MBTA should specify in future updates the name, model, and manufactures of the monitoring device.

The MBTA commits to performing emission tests for primary criteria pollutants (CO, PM, HC, and NOx) on buses prior to operation. Because the MBTA's plan is a new approach, DEP believes the testing program should be designed with input from an oversight committee or an emission testing protocol should be prepared for public and DEP review. This protocol should include detailed information on the testing protocol and which contractor(s) the MBTA plans to use to perform the testing.

The buses will also be tested when they are operational (in-use testing). The MBTA should conduct the J1667 snap idle test (required by the periodic MA diesel smoke program) in addition to their proposed visual check for the filters. The MBTA should also specify how NOx emissions will be measured. Will a five-gas analyzer be used? The NESCAUM states have an over-the-road testing device called "ROVER." The MBTA could use this at no cost, but will need to hire a contractor to perform the test. In any case, MBTA states "the technological issues associated with implementing these programs will be reported in subsequent annual updates once all of the design elements have been finalized." DEP agrees that the annual updates should report on the implementation of the testing program, but these issues should also be discussed with DEP and EOEA before they have been finalized.

A key component of both the emission testing prior to operation and in-use testing of the buses is an evaluation of the results as compared against the expected emissions performance of the MBTA's plan. In the event that the MBTA's plan for the Neoplan buses is not achieving the predicted emission levels, the MBTA should be required to take corrective actions.

The MBTA proposes to test the performance of the SCRT devices prior to installing the technology on all the Neoplan buses. It is likely, given the rapid development of diesel retrofit technology and according to Johnson Matthey, its SCRT™ technology will be available for all 32 buses in 2003, in which case the MBTA should retrofit the 30 buses not being delivered with SCRTs in 2003. In addition, waiting for EPA to verify the SCRT technology and for manufacturers to offer it as a commercially available product by engine manufacturers is

inadequate. In the peer review process and in the final report, installation was not dependent upon technology verification. If MBTA waits until the end of 2005 to retrofit with SCRTs, they will only be slightly ahead of the emissions standards for a few months, after which time the Neoplan buses will be dirtier than those being delivered in 2007. The new standards that will be in effect in 2007 will be much lower than the MBTA buses (0.2 grams for all heavy-duty vs. ~ 1 gram of NOx for the Neoplan buses). Alternatively, the MBTA should implement a community-based program to offset excess NOX emissions from the Neoplan buses until all of the vehicles are retrofit with SCRT technology. This is particularly important if all the Neoplan buses will not retrofit until 2005.

Feel free to contact me (617-292-5698) if you have any questions regarding this correspondence.

Very truly yours,

Steven G. Lipman, P.E.
Special Projects Coordinator

SGL/wp
Silver line project

Cc: Andrew Brennan, Director of Environmental Affairs, MBTA
Maura Zlody, MEPA Review Coordinator, Boston Environmental Department
Christine Kirby, Jerome Grafe, John Felix, David Shakespeare, Dave Murphy, Iris Davis, Keith Grillo, Laurel MacKay, Phil Weinberg, DEP, Deirdre Buckley, EOEA

Commonwealth of Massachusetts Department of Environmental Protection

Comment NPC54: During the development of the South Boston Piers Transitway Project, the MBTA and DEP executed a Special Procedures Determination under the MCP for management of Soil and Hazardous Materials (OHM) encountered during the project. That agreement ensured close coordination and cooperation among DEP, the MBTA and its consultants/contractors. DEP will discuss with the MBTA the potential for a similar type of cooperative agreement for the work to be performed at the Southampton Street facility.

Response: The MBTA will review any proposal from DEP to provide for a similar type of cooperative agreement. However, it should be noted that the maintenance facility, although supporting the Transitway project, is not a linear facility in itself and is readily addressed through the standard Massachusetts Contingency Plan (MCP) processes including Release Abatement Measures (RAM) and Utility Release Abatement Measures (URAM). The plans for site work have been submitted to and reviewed by DEP.

Comment NPC55: [T]he MBTA should consider treat[ing] the TLCP soils to remove the "hazards characteristic" prior to its removal from the Site.

Response: Treatment of soils prior to removal to address the lead TCLP characteristic is an option that will be addressed with the maintenance facility Contractor. As necessary, any changes to the approved RAM plan will be reviewed with DEP.

Comment NPC56: DEP wants to stress the importance of the MBTA properly managing the removal and disposal of lead-based paint and asbestos from the Mercedes Building located on the MBTA Site, which the report states will need to be demolished as part of this project.

Response: As part of the demolition of the Mercedes Building, the services of an asbestos-containing materials (ACM) and lead abatement Contractor were obtained. The Contractor was responsible for all activities including pre-abatement inspections, constructed

engineering controls, the use of state-certified ACM workers, personal air sample monitoring, regulated entry/exit and supervisor's logs, ambient air sampling, abatement, removal and disposal of the ACMs and lead wastes, worker decontamination, and submittal of all waste manifests. Independent monitoring of the Contractor abatement activities was performed including review of site worker certification, inspection of the abatement work, contractor oversight, daily collection and analysis of ambient and personal air samples, and identification and quantification of removed waste.

Commonwealth of Massachusetts

Division of Marine Fisheries

Southeast Marine Fisheries Station
50A Portside Drive
Pocasset, MA 02559
(508) 563-1779
fax (508) 563-5482

Paul J. Diodati
Director

May 15, 2001

Bob Durand, Secretary
EOEA, Attention: MEPA Office
Laura Rome, EOEA #6826 & 11701
251 Causeway Street, 9th Floor
Boston, MA 02114-2150

Dear Secretary. Durand:

The Division of Marine Fisheries has reviewed the Southampton Street Maintenance Facility Environmental Assessment /Notice of Project Change (EOEA #6826 & 11701) with regards to potential impacts to marine fisheries resources. Based on the information provided, we have no recommendations regarding the proposed scope of work at this time.

If you have any questions about this review, please contact Vin Malkoski in our Pocasset office at (508) 563-1779, ext. 119.

Sincerely yours,

Paul J Diodati

Paul J. Diodati
Director

Commonwealth of Massachusetts
Division of Marine Fisheries

No comments.

DUDLEY STREET NEIGHBORHOOD INITIATIVE

504 Dudley Street ◆ Roxbury, MA 02119
Phone: 617/442-9670 ◆ Fax: 617/427-8047
http://www.dsni.org

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Executive Director
John F Barros

May 8, 2001

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Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

Re: Project Change Notice
MBTA Southampton Street Maintenance Facility

Dear Secretary Durand;

The Dudley Street Neighborhood Initiative (DSNI) is a 16-year-old community based non-profit organization whose mission is to "Empower Dudley residents to organize, plan for, create, and control a vibrant, high quality and diverse neighborhood in collaboration with community partners." We wish to express our concern regarding the above mentioned Notice of Project Change. We urge you to direct your staff to require a full Environmental Impact Report.

This community is consistently the target of isolated and short-sighted planning. In the past we have struggled with the burden of numerous trash transfer stations, hazardous waste sites, lead poisoning, and the highest rates of asthma in the state of Massachusetts, among other environmental injustice. Today in the current development climate, we have become the target of a number of short sighted parking plans and traffic generating development projects.

We request that the comment period be extended to allow for a more thorough community review of the submitted documents by technical analysts with a community based perspective. We do not feel we have had adequate time to prepare comments.

NPC 57

The Newmarket Business Area is part of the lifeblood of this community. Added traffic congestion to this area with no significant economic benefit is generally not a positive for our community that sorely depends on that area's jobs. Newmarket is successful by in large because of its location and accessibility. To add additional roadblocks to that access will significantly impact the businesses, the employees, and our community.

We urge you to require a careful and thoughtful review of this project and require the MBTA to establish a long term siting plan that does not place such incredible burdens on any given community.

Respectfully,

Trish Settles
Director of Community Development

Cc: William Gage (MEPA) and Andrew Brennan (MBTA)

Dudley Street Neighborhood Initiative

Comment NPC57: The Newmarket Business Area is part of the lifeblood of this community. Added traffic congestion to this area with no significant economic benefits is generally not a positive for our community that sorely depends on that area's jobs. Newmarket is successful by in large because of its location and accessibility. To add additional roadblocks to that access will significantly impact the businesses, the employees, and our community.

Response: The MBTA believes that the added traffic resulting from the facility will be minimal and readily accommodated in the existing roadway network. This analysis was provided to the Newmarket Business Association.

563 Massachusetts Avenue
Boston, MA 02118
(617)236-4399

April 24,2001

Andrew D. Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
Ten Park Plaza, Rm. 6720
Boston, MA 02116

RE: Comments on RAM Plan for Moore Street, Southampton Street Maintenance Facility

Dear Mr. Brennan:

Thank you for the opportunity to comment on the above referenced document. In addition to your cover letter and attached drawing, I received an APPENDIX B consisting of eight pages and two maps or charts of the property. I presume APPENDIX A is irrelevant. There are two issues addressed in this letter.

The first relates to contaminated soil removal. Your cover letter of April 9, 2001 states that "... no excavation or soil removal will be required." However, in Appendix B, enclosed with your cover letter, Section 3.1.2 suggests that excavation and removal of contaminated soil will be performed ancillary to the placement of utilities. Further, in sec. 3.2.1, entitled Site Excavation, paragraph three refers to considerable soil excavation and potential removal (" The upper six to nine feet of soil shall be removed from the Moore Street portion... ."). Given the suggestion of considerable soil disturbance, I would like to know how, to whence, the contaminated soil will be disposed. **NPC58**

The second comment relates to the changed location of Moore Street, which your letter references in the second paragraph "...[T]he MBTA must widen a portion of Moore Street. To achieve this the MBTA must acquire an easement or portion of adjacent property at 34 Moore Street." As currently configured, Moore Street is straight; in the new configuration proposed by the MBTA, the street bends, moving somewhat towards the north. However, the width is *not* increased by any appreciable amount; my calipers suggest a consistent 50 foot width from Southampton Street to South Bay Street.. Therefore it appears that the MBTYA is gaining an easement on L&B's property at 34 Moore Street not to widen Moore Street, but rather to acquire additional land for the **NPC59**

proposed bus servicing facilities (fig. 2, "future Bus Washing Bldg.", and "future Bus Fueling Bldg.").

I would appreciate more details regarding street width, if the drawings you forwarded are not accurate. If they are, and your cover letter presents a mischaracterization, please advise me regarding public oversight over work done on the entire property under proposed construction, not merely the "eastern" annexed portion of L&B's property at 34 Moore Street.

Please ensure that I am mailed a copy of the environmental review documents as referenced in your penultimate paragraph, as there are many other concerns I have regarding this proposed development that do not directly relate to the PIP process for contaminated locations.

Thank you for your attention to my comments. I look forward to your response.

Sincerely,

Lloyd Fillion

Lloyd Fillion
(April 24, 2001)

Comment NPC58: Given the suggestion of considerable soil disturbance, I would like to know how, to whence, the contaminated soil will be disposed.

Response: Soil will be tested and characterized before a licensed disposal location is chosen in accordance with state and federal regulations. Alternatives available include the use as landfill cover, reuse as asphalt batching feed, or secure landfill disposal. Disposal will be governed by disposal facility criteria in coordination with state regulators. The soil testing and disposal is being performed under the oversight of the MBTA's Licensed Site Professional.

Comment NPC59: [I]t appears that the MBTA is gaining an easement on L&B's property at 34 Moore Street not to widen Moore Street, but rather to acquire additional land for the proposed bus servicing facilities.

Response: The MBTA has acquired the rights to the surface of the property at 34 Moore Street from the 34 Moore Street Limited Partnership by the MBTA's eminent domain authority. The owner has retained the air rights. This acquisition will be utilized for vehicle queuing and storage in lieu of vehicle queuing on Moore Street.

05-15-01 P02:48 IN

BG

563 Massachusetts Avenue
Boston, MA 02118

May 14, 2001

Robert Durand, Secretary
Executive Office of Environmental Affairs
Commonwealth of Massachusetts
251 Causeway Street, Suite 900
Boston, MA 02114

RECEIVED
MAY 15 2001
MEPA

MaryBeth Mello,
Deputy Regional Administrator
Federal Transportation Authority
55 Broadway
Cambridge, MA 02171

RE: Environmental Assessment/ Notice of Project Change (EA/NPC) for the Silver Line Maintenance Facility on Southampton Street – (EOEA#11707)

Dear Sec. Durand and Administrator Mello:

Thank you for the opportunity to comment on the above referenced document. This letter focuses on two issues, noise and choice of location.

NOISE

Section 5.1 of the EA/NPC defines sensitive receptors for noise as including "... 2)residences or buildings where people sleep; and 3)institutional land uses with primarily daytime and evening use, such as schools... ." (page 5-5). However the document then ignores several sensitive receptors within 1000-2000 feet. The South Bay House of Correction is within 1000 feet with no intervening buildings and is home to over 1200 individuals . These individuals as a class are recognized has having already a higher level of compromised health conditions than the average urban population. Additionally,

NPC60

the report ignores the residential area of Pompeii and Chesterton streets, again within 1500 feet. This several block residential area includes a number of elderly residents, again representing a sensitive part of the urban population. Finally, the Inner City School on Southampton Street, approximately across from the Boston Fire Department Headquarters, is a day time school servicing young people from the surrounding urban area. Its location of this school is within a 1000 foot distance, boundary line to boundary line. The school is also ignored by the report. All three of these ignored land uses include individuals who public health practitioners refer to as "captive" populations – populations not able to relocate away from such introduced pollutions.

The document thus erroneously states that there are no sensitive receptors within 2,000 feet of the site. Further, the data presented does not appear to account for the impact on these several populations.

LOCATION

The choice of the Southampton Street location is not adequately detailed within the scope of this document. Section 3 purports to consider alternatives. Section 3.4 includes table3.2 Summary Assessment of Alternatives.. This table compares Southampton to three other yards evaluating them on the basis of six qualifications. However, it is clear that a number of the evaluations are subjective in conclusion. (It is to be noted that my familarity is only with the Southampton and the Arborway yards; comments reference only those two locations.)

NPC61

For example, the first qualification is "Adequate size of parcel". Southampton and Arborway Yards both receive high performance grades, despite the fact that the Southampton Street location will need to relocate Moore Street in order to add property to the site, and *not* for bus queuing as the EA/NPC and RAM states. This will necessitate acquiring some of the abutting property (at 34 Moore Street) currently owned by L&B Property. This acquisition is made clear in the RAM (Release Abatement Measure) Plan in APPENDIX B of March 2001, as prepared for the MBTA by Stone and Webster Massachusetts, Inc. (See my letter of April 24, 2001 to Andrew Brennan of the MBTA, enclosed.) Therefore the equal grading of both locations is only accomplished by ignoring these needed land acquisitions for the Southampton Site.

In the same table. Southampton Street is graded as the only "high performance" property with regard to "Compatibility with adjacent land uses." However, Arborway does not have nearly the population density close by as does the Southampton facility with its proximity to the South Bay Correctional Facility. (See the above section on Noise.) Both yards have adjacent commercial uses. Therefore, it would seem that some

subjective balencing was performed in the evaluation to conclude that Southampton was the high performance site.

Regarding "Real estate acquisition", the necessity of purchasing additional property for the Southampton site has already been covered two paragraphs above. Additionally, an accomodation at some financial cost will be required to be made with Waldo Brothers (see Land Use in sec. 5.1, page 5-3). None of these costs are associated with the Arborway Yard, which is many times greater in square footage than is the proposed Southampton Street location, and so would not require the landtaking that is a part of the Southampton Street proposal. Financial costs seem to be ignored as otherwise Southampton Street would be given a "low performance" rather than the "Medium performance" grade.

For both "Minimal deadhead mileage" and "accessibility to revenue routes", those issues allow Southampton to "high perform" while Arborway is accorded "medium" to "low performance" only because the replacement for the Orange line service no longer services the entirety of the original route. Stated in another manner, the "deadheading" to the Arborway from Dudley Square could become a revenue route, eliminating any "deadheading" if the original Orange line service were replicated.

Finally, the evaluation of "Minimal environmental impacts" seems to stand the logic of fairness on its head. Both areas have residences closeby. However, it is clear that the residences surrounding the Southampton Street facility are already burdened with a greater industrial burden than are the residences surrounding the Arborway facility. It appears that because the residents surrounding the Southampton street site already enjoy higher pollution than elsewhere in the city, the impact of additional pollution will not be as noticed; the impact will be "minimal". Rather than spreading urban pollution as a societal burden equitably, the evaluation endorses a program of keeping the burden contained on a subset of the residents of the city. The evaluators concern themselves with the issue of regional impact at the expense of the immediate neighbors.

On page 3-5, it is stated that "([T]he Arborway facility has already been eliminated as an option, as described above)." The Arborway is eliminated because of "...community concern that a CNG bus facility would be too large for the area,... ."(page 3-2). Perhaps those community concerns should be a part of this EA/NPC.

The Arborway location would become ideal if the Silverline were to truly replace the former elevated Orange line, which service began at that yard. There is no reason that the Silverline buses could not begin and end their run at the Arborway, thus eliminating

NPC62

needless transiting across parts of the city not served by the buses (the deadheading routes referenced in sec. 2.3). . It is likely that much of the utility infrastructure still exists into the Arborway yard, thus likely increasing a financial savings in development costs.

Sincerely,

Lloyd Fillion

Lloyd Fillion

Enc.

Lloyd Fillion
(May 14, 2001)

Comment NPC60: [T]he document ignores several sensitive receptors within 1,000-2,000 feet. The South Bay House of Corrections is within 1,000 feet with no intervening buildings and is home to over 1,200 individuals. ... Additionally, the report ignores the residential areas of Pompeii and Chesterton streets, again within 1,500 feet. ... Finally, the Inner City School on Southampton Street, approximately across from the Boston Fire Department Headquarters, is a day time school servicing young people from the surrounding urban area. Its location of this school is within a 1,000-foot distance, boundary line to boundary line. ... All three of these ignored land uses include individuals who public health practitioners refer to as "captive" populations - populations not able to relocate away from such introduced pollutions.

Response: The three potential noise receptors that have been identified will not be adversely affected by the construction and operations of the maintenance facility or by the bus traffic along the proposed deadhead routes. Ambient noise readings provided in Table 5.2 (page 5-8), and shown in Figure 5.2 were taken at various locations within 2,000 feet of the proposed facility. City of Boston noise ordinance requirements will be in effect during the construction of the facility and specify that A-weight sound levels cannot exceed 86 dBA at 50 feet from the equipment. This level will only decrease as it travels over 1,000 feet to the potential receptors that were identified by the commenter and will be below ambient A-weighted sound levels taken near those sites. All operations at the site will be conducted within the buildings of the maintenance facility and therefore noise from operations at the facility will not be perceptible at any building identified. The buses being serviced at the maintenance facility are required to have idle and bus pull-away A-weighted sound levels of less than 65 dBA and 83 dBA, respectively. No buses serviced at the maintenance facility will pass on roadways in front of the South Bay House of Corrections for routes or deadheading, therefore there should be no perceived noise increase at this site. Buses will deadhead along Southampton Street and Massachusetts Avenue near the residential communities on Pompeii and Chesterton. The closest ambient noise data to these locations were taken at locations 4, 5, and 6 with an average ambient reading of 82.9 dBA which, compared to the noise levels

from the buses idling or pulling-away, results in no perceived increase in noise. Finally, noise data from location 6 located directly across the street from the Inner City School indicate an existing noise level in the range of 89 dBA which is above both the idle and pull-away noise levels of the MBTA buses that will be traveling on Southampton Street.

Comment NPC61: The choice of the Southampton Street location is not adequately detailed within the scope of this document. ... [T]able 3.2 ... compares Southampton to three other yards evaluating them on the basis of six qualifications. However, it is clear that a number of the evaluations are subjective in conclusion.

Response: Any comparative analysis would include subjective evaluations. The MBTA believes that these criteria are the ones that best lay out the needs and parameters of the facility.

Comment NPC62: The Arborway location would become ideal if the Silver Line were to truly replace the former elevated Orange line, which service began at that yard. There is no reason that the Silver Line buses could not begin and end their run at Arborway, thus eliminating needless transiting across parts of the city not served by the buses ....

Response: During the extensive community process on the Arborway facility, the community group insisted that the size of the facility be reduced to the greatest extent possible. The only way to accomplish this was to remove the Silver Line vehicles from that facility. This was codified in the Arborway Memorandum of Understanding (MOU) developed with the City and with CCPAY. The MBTA has no plans to renege on any of the commitments in the MOU.

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BG

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MAY 17 2001
MEPA

May 15, 2001

Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street
Boston, MA 02114

RE: EOEA #6826, EOEA #11701; EA/NPC, Silver Line Maintenance Facility on Southampton Street

Mr. Secretary:

Our firm has been retained by Waldo Brothers, a 100-year old business located on Southampton Street, and by the Newmarket Business Association, to assist and advise them concerning the above-mentioned NPC filed by the MBTA.

The NPC referenced above is incomplete in assessing the impacts on traffic, and thus impacts to the businesses in the Newmarket area, to warrant a finding of no significant impact (FONSI) from EOEA.

1. The impact on Waldo Brothers is significant and no agreement for mitigation exists between Waldo Brothers and the MBTA. **NPC63**

   Waldo Brothers is the largest supplier of masonry supplies in the Greater Boston area. If the MBTA implements its operations as proposed in the NPC, Waldo Brothers will be unable to continue its business in its present location without significant modifications to its plant.

   While the filing tacitly acknowledges this, Waldo Brothers' use of Moore Street, a private way, is termed to be "beyond their current rights." This ignores the de facto business operations of the company for more than 100 years. Thus, while the filing offers a business consultant "to develop a plan to reconfigure the operation" of Waldo Brothers' facility, the mitigation is limited "to the extent that it did not exceed the loss in value of real property."

   The MBTA's actions could put Waldo Brothers out of business. It is not unreasonable to require the MBTA to keep the company whole. Approval of the NPC should require a mitigation agreement that allows the company to continue its operations.

2. The traffic study included in the NPC does not address impacts during either the MBTA's peak hours of operation or the peak periods for Newmarket businesses, and incomplete with regard to the study area.

A. The traffic study included in the NPC assesses peak hour impacts under build and no-build scenarios projected out five years, but the buses that will use the proposed facility will not run during those periods. The NPC makes clear that peak period travel for its buses is not the time periods it has studied. Could EOEA issue a FONSI to a developer who proposed a retail establishment and only studied periods when the retail stores would be closed? There is no discussion in the NPC of projected impacts during the peak hours that the buses will be on the roads. EOEA should require the MBTA to determine effects on levels of service in the area during its peak hours of operation. Furthermore, the peak hours included in the NPC, while standard commuter hours are not the peak hours for the Newmarket businesses. The MBTA should be required to interview area businesses to determine their peak hours of operation, as many coincide with the early morning peak hours of the proposed facility, and to determine effects on levels of service during these hours. **NPC64**

B. One significant intersection is not included in the study area. Buses returning to the facility on Southbound Frontage Road are identified as taking Frontage Road to Southampton Street. Southbound Frontage Road and Southampton Street do not intersect. These buses would need to proceed to the signalized intersection southbound to the east of the South Bay Shopping Center and immediately to the west of off-bound traffic from the Southeast Expressway. The buses would then have to turn right and continue through the Shopping Center to Southampton Street, at which point they could turn left to access the proposed facility's driveways. The intersection at South Bay Shopping Center is not included in the study. This signalized intersection is frequently a source of congestion, especially during throughout the afternoon when traffic builds southbound out of the city, a condition that would obviously be exacerbated when 60-foot buses are added to the queue at the lights. Further, the owners and property managers of the South Bay Center were never contacted by the MBTA to discuss possible impacts, but rather heard about the proposed facility only through third parties. The impact on the intersection, and on the Shopping Center, must be quantified before it can be determined that there is no significant impact. Absent analysis, such a finding is premature. **NPC65** **NPC65**

Very truly yours,

Andrew M. Paven
Vice President

GPC/O'Neill and Associates
One Beacon Street
Boston, MA 02108
Ph 617.646.1021

Cc: MaryBeth Mello, Deputy Regional Administrator, Federal Transit Adminstration
Andrea D'Amato, Commissioner, Boston Transportation Department

GPC/O'Neill and Associates

Comment NPC63: The impact on Waldo Brothers is significant and no agreement for mitigation exists between Waldo Brothers and the MBTA.

Response: The MBTA now owns permanent subsurface easements along Moore Street and temporary surface easements along Moore Street. The MBTA has designed and plans to operate the facility in a manner that does not interfere with Waldo Brothers' operations.

Comment NPC64: EOEA should require the MBTA to determine effects on levels of serve in the area during its peak hours of operation. Furthermore, the peak hours in the NPC, while standard commuter hours are not the peak hours for the Newmarket businesses. The MBTA should be required to interview area businesses to determine their peak hours of operation, as many coincide with the early morning peak hours of the facility, and to determine effects on levels of service during these hours.

Response: During the facility's peak periods (approximately 4:30 to 7:30 a.m. and 8:00 to 10:00 p.m.), traffic is not at its peak period on Southampton Street. Since a small number of buses will return to the facility during the peak period, the study aimed at determining the impact of the buses during the peak period.

Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, Newmarket businesses were interviewed to determine when they were busiest, and manual truck counts were performed at these periods.

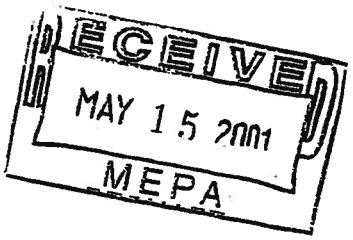
Comment NPC65: One significant intersection [the intersection at South Bay Shopping Center] is not included in the study area. ... Further, the owners and property managers of the South Bay Center were never contacted by the MBTA to discuss possible impacts.... The impact on the intersection, and on the Shopping Center, must be quantified before it can be determined that there is no significant impact.

Response: The intersection at South Bay Center was included in the analysis. The entrance to the shopping center is referred to as All State Road Extension. Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, the property manager of the shopping center was interviewed as suggested by the Newmarket Business Association.

THE GREATER BOSTON FOOD BANK

The shortest distance between hunger and food.℠

May 15, 2001



Secretary Bob Durand
The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
M.E.P.A. Office
251 Causeway Street, 9th Floor
Boston, MA 02114-2150

Dear Secretary Bob Durand
(RE: EOEA Project #'s **6826**; **11701**),

The Greater Boston Food Bank opposes the siting of the MBTA Silver Line Maintenance Facility on Southampton Street. Siting the facility at this location will result in increased and unacceptable levels of traffic, congestion and noise, and will significantly disrupt our business operations.

The Greater Boston Food Bank, located at 99 Atkinson St., is two blocks from the proposed maintenance facility. We are bordered by Atkinson St. to the West, Southampton St. to the South, Topeka St. to the East, and South Bay Ave. to the North.

The Greater Boston Food Bank is the largest food bank in New England. Each year we acquire and distribute 18 million pounds of food to 950 feeding providers throughout Eastern Massachusetts. The transport of food is integral to our operations: Each day we operate a fleet of four tractor-trailors, one 24-ft. truck., two 16ft. trucks, and two vans; supermarkets and food manufacturers deliver 3-5 tractor-trailor loads of food to our warehouse; and over 100 agency representatives shop at the warehouse driving either domestic or commercial size vehicles. Since we operate from 7:30 a.m. to 4:30 p.m., increases in traffic during off-peak as well as peak hours will disrupt the current flow of our business. In addition, the facility's proposed queuing of buses on Southampton Street and/or South Bay Avenue will result in partially blocked roadways, which will tremendously slow down the flow of traffic on these busy streets.

Upon reviewing the Environmental Assessment report for the maintenance facility prepared by URS Corporation, some questions remain. In Section 4, page 16, the report states: "Approximately half of the buses used for peak service (32) will begin to return to the site at 8:30 a.m., just *after* the end of the morning peak hour." Does this mean that the other half will return *during* the morning peak hour? **NPC66**

The report also contains conflicting data. Also on page 16 of Section 4 the report states, "A total of 584 employee person trips will occur over the course of the day." But at the end of this same **NPC67**

99 Atkinson Street, Boston, MA 02118-2701 Telephone 617-427-5200 Fax 617-427-0146 www.gbfb.org

A Second Harvest Food Bank

section (p. 4-22), the report concludes, "The facility adds approximately 340 daily vehicle trips, comprised of employees and buses." Which is it – 584 employee trips only or 340 employee and bus trips combined? Something doesn't add up.

I am requesting that a further review of the proposed facility's impact of traffic in the area be conducted.

Additionally, one area that has been unexplored – or explored but not communicated to stakeholders – is the use of Frontage Road rather than Southampton Street as the main access point for the proposed maintenance facility. This redesignation has the potential to divert the facility's bus traffic away from the already congested Southampton Street. At a May 10 public meeting, this idea was raised but was dismissed by an MBTA official because he said an engineer deemed the pitch of Frontage Road too steep for buses. I am requesting a thorough exploration of the Frontage Road access option, including a cost/benefit analysis for overcoming the pitch problem should that concern prove valid. **NPC68**

The report summary states, "The MBTA will work closely with the Newmarket business community to minimize any impacts associated with construction and operation of the maintenance facility" (p. 6-2) I appreciate this sentiment and look forward to working with you to find mutually satisfying solutions to these concerns.

Please respond to this letter at your earliest convenience.

Thank you,

Catherine D'Amato
President & CEO

Greater Boston Food Bank

Comment NPC66: In Section 4, page 16, the report states: "Approximately half of the buses used for peak service (32) will begin to return to the site at 8:30 a.m., just *after* the end of the morning peak hour." Does this mean that the other half will return *during* the morning peak hour?

Response: As demand subsides, 32 buses return incrementally to the facility. The remaining buses will stay out on their routes.

Comment NPC67: Also on page 16 of Section 4 the report states, "A total of 584 employee person trips will occur over the course of the day." But at the end of the same section (p. 4-22), the report concludes, "The facility adds approximately 340 daily vehicle trips, comprised of employees and buses." Which is it - 584 employees trips only or 340 employee and bus trips combined?

Response: The 584 employee trips refer to person trips. A person trip includes people using autos, public transportation, carpooling, walking, and biking to get to the site. The 584 trips include the existing police facility. The 304 vehicle trips include autos and buses. A trip is considered a vehicle either entering or leaving the facility.

Comment NPC68: Additionally, one area that has been unexplored ... is the use of Frontage Road rather than Southampton Street as the main access point for the proposed maintenance facility. This redesignation has the potential to divert the facility's bus traffic away from the already congested Southampton Street. At a May 10 public meeting, this idea was raised but was dismissed by an MBTA official because he said an engineer deemed the pitch of Frontage Road too steep for buses. I am requesting a thorough exploration of the Frontage Road access option, including a cost/benefit analysis for overcoming the pitch problem should that concern prove valid.

Response: The Frontage Road access option was studied in conjunction with the public design review process identified in the response to Comment NPC1. The option was presented at a July 17, 2001 meeting attended by representatives of the NBA, City of Boston, BTD, BRA, and the MBTA in the form of a design layout and construction estimate. It was determined the magnitude of the cost and FHWA permitting issues rendered the option as not feasible.

Massachusetts Sierra Club

Greater Boston Group

100 Boylston Street, Boston, MA 02116
(617) 423-5775 /Fax (617) 423-5858

April 27, 2001

Some thoughts on the siting of MBTA Bus Facilities

- As far as we can determine, **All MBTA bus maintenance facilities built during the past 15 to 20 years have been constructed within the city of Boston, except** for an existing trolley bus facility in North Cambridge that was reconstructed as part of the Red Line extension to Alewife Station in the early 1980's. As part of this reconstruction, the number of vehicles that could be stored here was significantly reduced, and only a portion of the original property was retained for transit purposes. Because of pollution concerns arising over the operation of a large number of diesel buses through the Harvard Square bus tunnel, the MBTA was forced to retain electric trolley buses on a number of routes emanating from Harvard Square to various locations. Due to the necessity of locating a trolley bus facility on the route structure it served, this remains the only exception to locating all new bus maintenance and storage facilities within the boundaries of the City of Boston.
- An earlier plan to build a 166 vehicle MBTA storage and maintenance facility in the South Boston Piers Area was quietly dropped within the past several years. Instead, a 77 bus maintenance/storage facility is now designated for land primarily owned by the MBTA on Moore Street off Southampton Street. This parcel is adjacent to one earlier proposed for use as an asphalt plant, and a small part of this site will "temporarily" used as parking lot during construction of the bus facility . Strong neighborhood opposition to the earlier asphalt plant proposal on environmental justice grounds would seem to suggest that the MBTA might anticipate these same type of concerns being voiced, especially in light of the close proximity of the Southampton Street site to other major MBTA bus and rail facilities.

There are approximately 950 to 1000 MBTA diesel buses now operating from six storage and/or maintenance facilities in addition to 40 electric trolley buses operating out of North Cambridge. These facilities are as follows:

Boston

1. **Charlestown** - approximately 205 diesel buses. A major storage and maintenance facility constructed in the 1970's.
2. **South Boston** (Cabot) - approximately 182 diesel buses. A major storage and maintenance facility constructed in the 1970's.
3. **South End** (Albany Street) - approximately 113 diesel buses. An older facility housing most, if not all, the buses used on Turnpike express routes and circumferential bus services. An adjacent parcel owned by the MBTA, and once used as a powerhouse, has recently been sold for development.
4. **Roxbury** (Bartlett) - approximately 173 diesel buses. An older facility renovated in the early 1980's. Although there has been some talk of this facility being closed in the near future, there has been no clear timetable set for the closure, clean up and disposition of this property.

Other MBTA Bus Storage/Maintenance Facilities

1. **Cambridge** (North Cambridge) - approximately 40 electric trolley buses. A new facility for the small fleet of trolley buses was constructed in the early 1980's. The present facility occupies only a portion of a larger storage facility that once existed at this location.
2. **Medford** (Salem Street/Fellsway) - approximately 92 diesel buses. An older facility consisting mostly of outdoor bus storage along with a small garage. Located adjacent to an older high density and low to moderate income neighborhood. Newly elected State Representative Paul J. Donato has expressed interest in filing a bill to mandate the relocation of this facility out of Medford due to constituent concerns over noise and pollution impacts. Where these vehicles would be relocated to is unclear.
3. **Quincy** (Quincy Garage) - approximately 87 diesel buses. - An old streetcar facility with some outdoor storage. Last renovated in the early 1980's.
4. **Lynn** (Lynn Garage) - approximately 107 diesel buses. - An older facility with some outdoor storage. Located adjacent to an older high density and low income neighborhood.

There is also a facility located in **Everett**. Although a small reserve fleet may still be stored here, this facility is primarily used for heavy bus maintenance and dead storage for out of service vehicles, and is not included in the above total.

Future Policy Considerations

1. What is the future of the various existing MBTA bus storage/maintenance facilities? Several, including Quincy and Bartlett, are older facilities that have been suggested for closure in the past. In the case of Quincy, there was once talk of re-assigning those buses to Cabot in South Boston. Many older facilities, to a greater or lesser degree, are located on property that could be redeveloped for other uses. Albany Street garage is one example of a property that potentially has great value in today's real estate market. **NPC69**
2. Both the existing North Cambridge trolley bus maintenance facility, plus the remaining portion of an older larger maintenance facility that was never redeveloped and is now used for parking, could be recombined for a fairly large development opportunity. **NPC 70**
3. In describing the proposed Arborway Garage project, the MBTA emphasizes the potential efficiencies from the reduction in deadhead mileage (empty buses going/returning to the beginning/end of their routes) resulting from this project. Yet, this has not been a priority in other siting decisions as is evidenced by the absence of any maintenance/storage facilities for buses serving Cambridge and Arlington, except for an absolute minimum number of trolley buses at North Cambridge. ***Many vehicles serving both these two communities now travel a significant distance from Charlestown, through Somerville, on their way to both Arlington and Cambridge routes.*** Yet the MBTA could have retained more of the original North Cambridge property and constructed a larger facility serving both diesel and electric vehicles. The MBTA could have also constructed a maintenance/storage facility at a site it once owned in **Arlington Heights** and which was recently declared surplus. **NPC71** **NPC72**
4. The MBTA also owns a large and unused maintenance facility in **Watertown Square**. Although a portion of the storage yard is presently utilized as a park and ride lot and bus terminal for Turnpike express routes, the rest of the property is vacant and the Club is unaware of any plans for its disposition. **NPC73**
5. The MBTA needs to develop both short and long term strategies to deal with future bus maintenance and storage facility issues. Early and meaningful public involvement must be an integral part of this process.

Albany Street Bus Storage Analysis

Route Number and Area Served	AM Peak	PM Peak
47: Central Square - Broadway Serves Cambridge, Brookline, Roxbury and South Boston.	5	6
57: Watertown Square - Kenmore Square. Serves Watertown, Newton, Brighton and Allston.	12	11
59: Needham Junction - Watertown. Serves Needham, Newton and Watertown.	3	3
60: Chestnut Hill - Kenmore. Serves Brookline and the Fenway/LMA.	4	3
65: Brighton Center - Kenmore. Serves Brighton, Brookline, and the Fenway/LMA.	3	3
500: Riverside - Downtown. Serves suburban riders parking at Riverside Station in Newton.	6	6
501: Brighton Center - Downtown. Serves Brighton and Newton.	12	10
502: Watertown - Copley. Serves Watertown and Newton.	7	5
504: Watertown - Downtown Serves Watertown and Newton.	8	8
505: Waltham - Downtown Serves Waltham and Newton.	12	8
553: Roberts - Downtown Serves Waltham and Newton.	2	3
554: Waverly Square - Downtown Serves Belmont, Newton and Waltham.	3	2
556: Waltham Highlands - Downtown Serves Waltham and Newton.	4	3
558: Auburndale – Downtown Serves Newton	3	3

CT1: <u>Central Square – Boston Medical Center</u> Serves Cambridge, Back Bay and the South End.	4	4
CT2: <u>Sullivan – Ruggles Station</u> Serves Charlestown, Somerville, Cambridge, Brookline, Fenway/LMA and Roxbury.	3 plus	4 plus
CT3: <u>Beth Israel(LMA) – Logan Airport</u> Serves Fenway/LMA, Roxbury, and Logan Airport.	6	6
Totals	**97**	**88**
<u>Total number of vehicles maintained at Albany Garage (includes spares)</u>	**118**	**118**

Massachusetts Sierra Club
(April 27, 2001)

Comment NPC69: What is the future of the various existing MBTA bus storage/ maintenance facilities?

Response: See the response to Comment NPC46.

Comment NPC70: Both the existing North Cambridge trolley bus maintenance facility, plus the remaining portion of an older larger maintenance facility that was never redeveloped and is now used for parking, could be recombined for a fairly large development opportunity.

Response: The North Cambridge facility is separate and apart from the Silver Line and not part of this MEPA filing.

Comment NPC71: In describing the proposed Arborway Garage project, the MBTA emphasizes the potential efficiencies from the reduction in deadhead mileage ... resulting from this project. Yet, this has not been a priority in other siting decisions....

Response: The MBTA has not sited a new bus garage in over 30 years. The need to minimize deadheading is a function of fuel economy and environmental impacts, neither of which were major considerations in the 1950s and 1960s.

Comment NPC72: The MBTA also owns a large and unused maintenance facility in Watertown Square. Although a portion of the storage yard is presently utilized as a park and ride lot and bus terminal for Turnpike express routes, the rest of the property is vacant and the Club is unaware of any plans for its disposition.

Response: This will be examined as part of the bus maintenance facility study described in Comment NPC46.

Comment NPC73: The MBTA needs to develop both short- and long-term strategies to deal with future bus maintenance and storage facility issues. Early and meaningful public involvement must be an integral part of this process.

Response: See the response to Comment NPC46.

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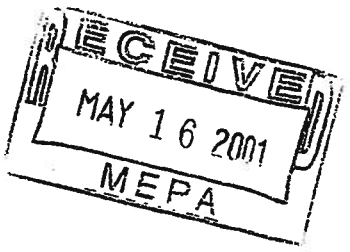

Massachusetts Sierra Club

Greater Boston Group

100 Boylston Street, Boston, MA 02116
(617) 423-5775 /Fax (617) 423-5858

Bob Durand, Secretary
Executive Office of Environmental Affairs, Attention: MEPA Office
William Gage, EOEA **No. 6826/11707**
251 Causeway Street, Suite 900
Boston, MA 02114

Mary Beth Mello
Deputy Regional Administrator
Federal Transit Administration
55 Broadway
Cambridge, MA 02171

May 12, 2001

Re: Silver Line Maintenance Facility-Environmental Assessment and Notice of Project Change

South Boston Piers Transitway (EOEA 6826) and Washington Street Transit Service (EOEA 11707)

Process

In a letter dated May 2, 2001, Andrew D. Brennan of the MBTA states that the closing date (June 8, 2001) for comments on this NPC as contained in the MEPA Monitor of April 25, 2001 was in error, and that a closing date of May 15, 2001 would stand.

The most recent edition of the MEPA Monitor (May 9, 2001) now references a date of ***6/15/2001*** as the due date for comments on this project.

We would encourage the MBTA, as the project proponent, to, at the very minimum, let the June 15, 2001 date stand as the end of the comment period.

It's not clear that all parties who have an interest in this EA/NPC have received adequate notice and will be able to respond by the May 15th date.

It's also not clear that any decision on this NPC/EA can be made prior to the completion of the Massachusetts's Department of Environmental Protection determination that the restoration of full Arborway Green Line service between ***Forest Hills and Park Street Station, and not just Heath Street Loop as stated in the EA/NPC***, is "infeasible' or that another project may be substituted for this Central Artery Project mitigation requirement.

The storage of light rail vehicles for Arborway service can be accommodated at the MBTA's new maintenance facility to be constructed at Forest Hills. If full Arborway Green Line service is restored there would no longer be any need for a route 39 bus service, nor a place to store the 27 vehicles associated with this service..

In the MBTA's Revised Annual Update for the Silver Line, also under review with the Executive Office of Environmental Affairs and with a comment closing date of May 17, 2001, the MBTA has proposed an "interim" substitution of 40 foot buses for the planned sixty foot, low floor CNG buses originally proposed for Washington Street service.

Since these sixty foot vehicles were to serve both the Arborway and Washington Street corridors, it can be inferred that the same "interim use" proposal will be advanced for Arborway service as well. Yet, there is no mention of this interim bus proposal in the EA/NPC currently under review, and no analysis has been undertaken to ascertain the impacts of this decision on the proposed Southampton Street facility.

It's also clear from the public meeting held on Thursday, May 10, 2001 at the MBTA Police headquarters that many additional issues and concerns still need to be resolved before this project can proceed in any form.

The Club is therefore recommending that the MBTA ***withdraw*** this EA/NPC until the issues raised at both the public meeting and from various commentators (including those from the Sierra Club) be fully addressed.

Need

The MBTA has yet to make a creditable case that the planned Southampton Street facility is even needed. **NPC74**

- As noted above, full Arborway Green Line restoration would negate the continuing need for the route 39 bus or the 27 buses associated with this service. Light rail vehicles can be stored at Forest Hills. The full restoration of Arborway Green Line service would also result in significantly increased air quality benefits over the proposed action and negate the deadheading of buses to Forest Hills from Southampton Street. There is strong community support for the resumption of Arborway Green Line service and space for a light rail storage facility for Arborway vehicles has been incorporated into the planning process for the MBTA's new Arborway maintenance facility.

- There continues to be no good reason for the Turnpike express buses now stored at Albany garage to be based at this facility. Relocation of these vehicles out of the City of Boston would allow for many buses now garaged at Cabot to be relocated to Albany, thus freeing up space for the South Boston Piers Transitway (Silver Line) vehicles. There would be no reason for these vehicles (32) to ever cross the expressway. With the completion of a direct connection between the Ted Williams tunnel and the Turnpike, inbound PM Turnpike traffic delays now encountered should be alleviated to such a degree that express buses entering **NPC75**

service in the afternoon from a suburban facility would not be negatively impacted.

- As Bob Terrell from the Washington Street Corridor Coalition stated during the May 10th meeting, the struggle for a true replacement service for the former elevated Orange Line corridor through Dudley Station isn't over. A rail based Orange or Green Line replacement service would negate the need for the 14 plus vehicles associated with this service. **NPC76**
  Although the proposed Washington Street bus service has been designated part of the "Silver Line" by the MBTA, the reality is there isn't a "Silver Line" and usage of this term should be discontinued. There is only the South Boston Piers Transitway Project between the South Boston Piers area and South Station, with a possible extension to Boylston Street Station and/or Medical Center Station. There is no funded or fully designed connection between the Transitway Project and any proposed Washington Street Replacement Service, and until the state actually constructs such a connection between the two projects, the term "Silver Line" will remain a public relations ploy to cover the lack of transit investment in some of the most disenfranchised neighborhoods in the city of Boston.
  The reconstruction of Washington Street now underway, between Dudley Square in Roxbury and Avenue De Lafayette in downtown Boston, is ***primarily a road rebuilding*** project and ***does not adequately address the issue of a permanent replacement service for the Orange Line rapid transit service*** relocated from this corridor in 1987. It simply attempts to make permanent a variation of the inadequate replacement bus service in existence since 1987. According to the Central Artery/Tunnel Transit and Traffic Management Commitments, the provision of such a replacement service was supposed to have been completed by 12/31/94.

The MBTA needs to develop both ***short and long term*** strategies to deal with future bus maintenance and storage facility issues. Early and meaningful public involvement must be an integral part of this process. No further development of facilities show be funded or permitted until such an alternatives study is completed and subjected to a full public review. **NPC77**

As far as we can determine, **All MBTA bus maintenance facilities built during the past 15 to 20 years have been constructed within the city of Boston, except** for an existing trolley bus facility in North Cambridge that was reconstructed as part of the Red Line extension to Alewife Station in the early 1980's. As part of this reconstruction, the number of vehicles that could be stored here was significantly reduced, and only a portion of the original property was retained for transit purposes.

Because of pollution concerns arising over the operation of a large number of diesel buses through the Harvard Square bus tunnel, the MBTA was forced to retain electric trolley buses on a number of routes emanating from Harvard Square to various locations. Due to the necessity of locating a trolley bus facility on the route structure it served, this remains the only exception to locating all new bus maintenance and storage facilities within the boundaries of the City of Boston.

An earlier plan to build a 166 vehicle MBTA storage and maintenance facility in the South Boston Piers Area was quietly dropped within the past several years. Instead, a 77 bus maintenance/storage facility is now designated for land primarily owned by the MBTA on Moore Street off Southampton Street and is the subject of this NPC/EA. This parcel is adjacent to one earlier proposed for use as an asphalt plant, and a small part of this site will "temporarily" used as parking lot during construction of the bus facility .

Strong neighborhood opposition to the earlier asphalt plant proposal on environmental justice grounds would seem to suggest that the MBTA might anticipate these same type of concerns being voiced, especially in light of the close proximity of the Southampton Street site to other major MBTA bus and rail facilities.

There are approximately 950 to 1000 MBTA diesel buses now operating from six storage and/or maintenance facilities in addition to 40 electric trolley buses operating out of North Cambridge. These facilities are as follows:

Boston

1. **Charlestown** - approximately 205 diesel buses. A major storage and maintenance facility constructed in the 1970's.
2. **South Boston** (Cabot) - approximately 182 diesel buses. A major storage and maintenance facility constructed in the 1970's.
3. **South End** (Albany Street) - approximately 118 diesel buses. An older facility housing most, if not all, the buses used on Turnpike express routes and circumferential bus services. An adjacent parcel owned by the MBTA, and once used as a powerhouse, has recently been sold for development. We have attached a description of the routes now based at this facility and the approximate numbers of vehicles assigned to each route.
4. **Roxbury** (Bartlett) - approximately 173 diesel buses. An older facility renovated in the early 1980's. Although there has been some talk of this facility being closed in the near future, there has been no clear timetable set for the closure, clean up and disposition of this property.

MBTA Bus Storage/Maintenance Facilities outside of Boston

1. **Cambridge** (North Cambridge) - approximately 40 electric trolley buses. A new facility for the small fleet of trolley buses was constructed in the early 1980's. The present facility occupies only a portion of a larger storage facility that once existed at this location.
2. **Medford** (Salem Street/Fellsway) - approximately 92 diesel buses. An older facility consisting mostly of outdoor bus storage along with a small garage. Located adjacent to an older high density and low to moderate income neighborhood. State Representative Paul J. Donato has filed legislation (**H568**) to mandate the relocation of this facility out of Medford due to constituent concerns over noise and pollution impacts. ***Where these vehicles would be relocated to is unclear.***
3. **Quincy** (Quincy Garage) - approximately 87 diesel buses. - An old streetcar facility with some outdoor storage. Last renovated in the early 1980's.

4. **Lynn** (Lynn Garage) - approximately 107 diesel buses. - An older facility with some outdoor storage. Located adjacent to an older high density and low income neighborhood.

There is also a facility located in **Everett**. Although a small reserve fleet may still be stored here, this facility is primarily used for heavy bus maintenance and dead storage for out of service vehicles, and is not included in the above total.

Future Policy Considerations

1. What is the future of the various existing MBTA bus storage/maintenance facilities? Several, including Quincy and Bartlett, are older facilities that have been suggested for closure in the past. In the case of Quincy, there was once talk of re-assigning those buses to Cabot in South Boston. Many older facilities, to a greater or lesser degree, are located on property that could be redeveloped for other uses. Albany Street garage is one example of a property that potentially has great value in today's real estate market.
2. Both the existing North Cambridge trolley bus maintenance facility, plus the remaining portion of an older larger maintenance facility that was never redeveloped and is now used for parking, could be recombined for a fairly large development opportunity.
3. In describing the proposed Arborway Garage project, the MBTA emphasizes the potential efficiencies from the reduction in deadhead mileage (empty buses going/returning to the beginning/end of their routes) resulting from this project. Yet, this has not been a priority in other siting decisions as is evidenced by the absence of any maintenance/storage facilities for buses serving Cambridge and Arlington, except for an absolute minimum number of trolley buses at North Cambridge. ***Many vehicles serving both these two communities now travel a significant distance from Charlestown, through Somerville, on their way to both Arlington and Cambridge routes***. Yet the MBTA could have retained more of the original North Cambridge property and constructed a larger facility serving both diesel and electric vehicles. The MBTA could have also constructed a maintenance/storage facility at a site it once owned in **Arlington Heights** and which was recently declared surplus.
4. The MBTA also owns a large and unused maintenance facility in **Watertown Square**. Although a portion of the storage yard is presently utilized as a park and ride lot and bus terminal for Turnpike express routes, the rest of the property is vacant and the Club is unaware of any plans for its disposition.

Sincerely,

John F. Deacon

Massachusetts Bay Transportation Authority

Jane Swift
Governor

Kevin J. Sullivan
Secretary and MBTA Chairman

Robert H. Prince, Jr.
General Manager

To: Interested Parties

From: Andrew D. Brennan
Director of Environmental Affairs

Date: May 2, 2001

Re: Silver Line Maintenance Facility/Notice of Project Change

Recently you received a copy of the NPC for the above referenced project. Attached to the report was a cover letter stating that the comments are due to MEPA no later than May 15, 2001. The most recent issue of the *MEPA Monitor* (dated April 25, 2001) however, stated that the comment period will close on June 8, 2001. ***This June date in the MEPA Monitor is incorrect. The comment period for MEPA (as well as for the FTA) will close on May 15, 2001 as described in my cover letter.***

MEPA has assured me that a correction will be made in the next issue of the *MEPA Monitor*.

I hope this did not cause you any significant confusion. If you have any questions, please contact me at 617-222-3126 or at abrennan@mbta.com

Previous Notices of Project Change

10335	MWRA Combined Sewer Overflow Control Projects	Boston	The project change involves a reassessment of siting alternatives and CSO control technologies for North Dorchester Bay and the Reserved Channel.	5/29/01	Lise Marx (617) 788-4390	Richard Foster (617) 626-1026
10458	Logan Airside Improvements Planning Project	Boston	The project change involves a lapse of time of more than three years between the publication of the ENF and the Notice of Availability of the Final EIR.	5/11/01	Tom Ennis (617) 568-3534	Arthur Pugsley (617) 626-1029
6416	Willowbend Golf Course	Mashpee	The project change involves the proposed development of nine additional golf course holes in lieu of a previously approved expansion of 67 housing units.	5/15/01	John McElhinney (508) 539-5317	Arthur Pugsley (617) 626-1029
6826/ 11707	Silver Line Maintenance Facility	Boston	The project change involves the relocation of the proposed South Boston Piers Maintenance Facility from East First Street in the South Boston Waterfront area, and the proposed maintenance facility at the Arborway in Jamaica Plain for the Washington Street replacement service, to a single maintenance facility to be located in the Southampton Street area.	6/15/01	Andrew Brennan (617) 222-3126	William Gage (617) 626-1025

U.S. are also looking into the feasibility of using ULSD fuel in the near term for their bus fleets. These developments will increase market demand for ULSD and, potentially, provide incentive to other petroleum refiners to retrofit their refineries earlier than the current EPA mandate for 2006/2007 conversions over to ULSD at 15 ppm wt. sulfur content.

In addition, the use of ULSD fuel by other major transit properties in the U.S. is gaining momentum as its use – part of an overall emission controls technology strategy – is extremely cost-effective and operationally efficient. Furthermore, transit properties along with other public sector heavy-duty diesel fleet operators (school bus, waste management, etc.) appear to be taking advantage of this momentum and accelerating the introduction of ULSD fuel to their fleets much before the EPA-mandated 2006/2007 compliance milestone.

3.3 Washington Street CNG Articulated Vehicle

The MBTA has selected the use of compressed natural gas (CNG) fueled vehicles for the Washington Street component of the Silver Line for Phase 1 operations. These clean fuel vehicles will be procured and deployed in two stages. For the first stage, 15 40-foot CNG low floor buses will be procured for scheduled delivery in the 3rd quarter 2001 and deployed for revenue service in the 4th quarter 2001. For the second stage, 44 60-foot CNG articulated vehicles will be procured and delivered to the MBTA beginning in late December 2003 and completed in early 2004. These vehicles will eventually replace the 40-foot CNG buses in service on Washington Street.

The use of the 40-foot CNG vehicles for initial service on Washington Street reflects the longer lead time needed to procure 60-foot articulated CNG vehicles. Infrastructure improvements in the Washington Street corridor will be ongoing while the 60-foot vehicles are procured. The 40-foot and 60-foot CNG vehicles are described in the following sections.

Forty-Foot CNG Vehicle

The MBTA has entered into a contract with New Flyer of Winnipeg, Manitoba, Canada to provide 15 40-foot, low floor, CNG-powered buses. These buses will provide interim service until delivery of the 60-foot CNG articulated buses (discussed below). The 40-foot buses will be approximately 102 inches wide with an overall height of 11 feet, 6 inches; they will have a low floor design and will be powered by a natural gas fuel/engine type. The 40-foot New Flyer vehicle will be powered by a Detroit Diesel Corporation (DDC) Series 50G natural gas fueled engine. The CNG engine system requires a series of compressed natural gas storage cylinders to be mounted on the roof of the vehicle. From these cylinders, the natural gas is fed to the DDC Series 50G engine; in turn, the engine powers a conventional mechanical (automatic) transmission rear axle drive system. The New Flyer vehicles' emission profile and its EPA certification standard are discussed in Section 3.4.

Sixty-Foot CNG Articulated Vehicle

The MBTA has chosen a 60-foot articulated CNG vehicle to provide service along the Washington Street corridor beginning by at least 2004. This vehicle is to be purchased by the MBTA from Neoplan USA, the same company providing the Transitway DMA vehicle. The 60-foot articulated CNG vehicle will be very similar to the DMA vehicle previously described. Although the physical design and features of this vehicle are very much like the Transitway vehicle, the major difference is in the propulsion system. In this case, natural gas and a DDC Series 60G engine will power the 60-foot vehicle. This CNG system is the same as the 40-foot interim vehicle described above. Delivery of the 60-foot vehicle is expected to begin in December 2003 with delivery of all 44 to be completed by March/April 2004. The Neoplan vehicle will comply with applicable EPA air emission standards as described in Section 3.4.

HOUSE . . . . . No. 568

By Mr. Donato of Medford, petition of Paul J. Donato relative to prohibiting Massachusetts Bay Transportation Authority car barns from residential areas. Transportation.

The Commonwealth of Massachusetts

In the Year Two Thousand and One.

AN ACT PROHIBITING MASSACHUSETTS BAY TRANSPORTATION AUTHORITY CAR BARNS FROM RESIDENTIAL AREAS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

The Massachusetts Bay Transportation Authority is hereby directed to close any car barn, so-called, located in or within 150 feet of any residentially zoned area within three years of the effective date of this act and not to locate any future car barns within such prohibited areas.

This Document Has Been Printed On 100% Recycled Paper.

Massachusetts Sierra Club
(May 12, 2001)

Comment NPC74: The MBTA has yet to make a creditable case that the planned Southampton Street facility is even needed. ... [F]ull Arborway Green Line restoration would negate the continuing need for the route 39 bus or the 27 buses associated with this service.

Response: The MBTA now plans to restore Green Line service along Arborway, but the Southampton Street maintenance facility is still needed to accommodate other Silver Line vehicles.

Comment NPC75: There continues to be no good reason for the Turnpike express buses now stored at Albany garage to be based at this facility. Relocation of these vehicles out of the City of Boston would allow for many buses now garaged at Cabot to be relocated to Albany, thus freeing up space for the South Boston Piers Transitway (Silver Line) vehicles.

Response: This will be examined as part of the bus maintenance facility study discussed in the response to Comment NPC46.

Comment NPC76: [T]he struggle for a true replacement service for the former elevated Orange Line corridor through Dudley Station isn't over. A rail-based Orange or Green Line replacement service would negate the need for the 14 plus vehicles associated with this service.

Response: The MBTA now plans to restore Green Line service to Arborway. Converting the Washington Street corridor is still an option, but a maintenance facility is needed in the interim.

Comment NPC77: The MBTA needs to develop both short- and long-term strategies to deal with future bus maintenance and storage facility issues. Early and meaningful public involvement must be an integral part of this process.

Response: See the response to Comment NPC46.

BG

05-11-01 P04:06 IN

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Betterway Boston, Inc.

VICE PRESIDENTS
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Boston Flower Exchange, Inc.

WILLIAM L. JACOBSON
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NEWMARKET
BUSINESS ASSOCIATION

May 6, 2001

MaryBeth Mello
Deputy Regional Administrator
Federal Transit Administration
55 Broadway
Cambridge, MA 02171

Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

RECEIVED
MAY 15 2001
MEPA

Mr. Durand,

REF: EOEA project numbers 6826 and 11701

The MBTA has submitted for its proposed Southampton Street Maintenance Facility an Environmental Assessment/Notice of Project Change in an effort to secure a Finding of No Significant Impact. Simply reading this submission with its selectively chosen data would mislead one into believing that such a large facility would have a negligible impact on Boston's busiest, most concentrated trucking and distribution area, the source of the city's food. In fact, the proposed facility jeopardizes the very existence of this area. (More information on Newmarket is available at our WWW.newmarketboston.org website.)

Newmarket businesses are a vital part of Boston's economy. They represent approximately 15,000 employees. Of this number, about two-thirds are Boston residents, the majority of jobs being blue collar. Yet the impact on this important area is wholly understated.

For reasons cited herein, the Environmental Assessment/Notice of Project Change is too incomplete, too lacking in public input to justify a Finding of No Significant Impact. We request that you not issue your approval.

Yours truly,

Carl E. Lizio
President

direct line: 617 - 536 - 5151
fax: 617 - 292 - 4666

The traffic study does not reflect the local realities.

A. Timing of study: The MBTA claims the facility will be an off-peak operation. Not for Newmarket. Not only is 4:30 to 7:30 AM one of our most important periods, the traffic counts did not cover that time period.. The researchers chose instead periods later in the day *when the busses would not be rolling*. Their results, consequently, are inapplicable. **NPC78**

B. Seasonality: The brief study was conducted during early March, the wrong time of the year. Newmarket has a distinct, seasonal increase in activity from May to October, generally coinciding with traditional fishing season, greater availability of fresh produce and increased business at hotels and restaurants due to tourist season. Other of our businesses have a substantial increase in trucking during the last three months of the year due to Christmas. Had the MBTA bothered to ask us, we would have so informed them. Now they are making their own plans based on a study that is incomplete. **NPC79**

C. Existing loading dock practices: Decades in effect, these require trailers to stage on Southampton Street. This practice is the same along all streets in Newmarket, the unavoidable reality of a congested, urban distribution area. The MBTA's response? "We'll ticket the trucks if they get in our way." Changing or hampering our companies' ability to conduct their business unmolested will thoroughly impede the viability of Newmarket as a distribution area. This is no way to deal with business people well established in the area who are providing employment, earning an honest living and paying taxes. **NPC80**

D. Other, announced projects: Imminent development in the area is not even included in the study although well known to everyone here. Four blocks away the Crosstown Center, which will be started before the Maintenance Facility, will have a 1,250 car garage. 500 of these spaces are for MASCO which means about 2,500 vehicle turns per day (2 shifts and shuttle busses) at one of the city's worst traffic choke points, the intersection of Mass. Avenue and Melnea Cass Blvd. Boston Medical Center has already announced plans for a 1,000 car parking garage. The study does not even mention these developments even though they will materially impact the MBTA's ability to move its own vehicles through the area. **NPC81**

The MBTA has begrudgingly offered only minimal public process. **NPC82**

Apparently in the mistaken belief that Newmarket is an industrial wasteland with no organized group monitoring its interests, the MBTA's representatives have felt free to threaten our businesses, impose major changes on this congested area and contribute to already significant traffic problems, all without bothering to consult those who work here and know the area and its problems well.

Note that Section 3.3 Summary of Public Comments covers only those sites that were rejected and there are no comments from the communities surrounding Southampton Street.

The plans and document preparation were complete before the community was even informed. The Newmarket Business Association which for 25 years has represented nearly every company in the district, only found about the project through our own grapevine. Our first request for a meeting was actually spurned and it was not until our elected representatives pressured the MBTA that they agreed to discuss the proposal. At this meeting on March 19, no written plan was presented. A second meeting, on April 25, included most of the top officials of the MBTA. The traffic study was discussed and copies of the Environmental Assessment/Notice of Project Change were given out. Thus eight days into the twenty day comment period, the MBTA had finally confronted the community with the details of its plan. The proposal, even with the shortcomings of its underlying traffic research and its unfamiliarity with the actual workings of the area, was presented as a fait accompli.

We were surprised and suspicious when the MBTA specifically asked that Vineet Gupta, the City of Boston's highly competent traffic planner (whose office is a block away on Southampton Street) not be invited to the April 25 meeting.

The MBTA has failed to take advantage of the real-world knowledge Newmarket businesses have and instead relied on scant observations done in a vacuum. The company owners most affected, those who know the most about vehicle movement through the area, who's businesses depend for success or failure on trucking were never contacted at all. For the MBTA's convenience we have prepared a list of some of our most knowledgeable companies and we will assist by making introductions. We suggest a short questionnaire be developed so that the responses are consistent and relevant. Unless the MBTA sits face to face with these business owners no study they present will support their request for a Finding of No Significant Impact.

No consideration has been given to mitigating the impact of the proposed Facility.

Among the most problematic parts of the plan is the proposed curb cut that would allow ten busses abreast to exit directly into Southampton Street traffic. Based on everyday experience, we know this will only make a bad situation worse. The MBTA refuses to discuss alternatives. **NPC83**

Likewise, a suggestion to use Frontage Road for incoming busses was rejected although the MBTA already has its own curb cut there. When asked, an MBTA representative stated that it was impossible to turn busses off Frontage Road. This is just not true as an inspection of the site reveals. **NPC84**

The proposed facility relies heavily on the Mass. Avenue and Melnea Cass Blvd. intersection which is already overburdened. Yet there are no recommendations to improve traffic flow with new signal timing, traffic direction changes, signage, etc **NPC85**

The MBTA is not at all forthcoming about future plans.

When asked about the possibility of using the proposed Facility to store and maintain busses from Bartlett Street and Albany Street sites, the MBTA stated that there was no expansion plan for the Southampton Street location. Not true. On page 2-15 of the Environmental Assessment/Notice of Project Change, it is made clear that there is in fact an entire plan for future expansion to accommodate CNG busses from five or more other lines. What this says to us is that as CNG busses replace diesel busses system-wide, Southampton Street will become the MBTA's central maintenance facility for all such vehicles, the traffic problems will become even worse and the city's food distribution district will be crowded out. **NPC86**

Is it any wonder that this community is highly suspicious of MBTA representations?

Conclusions

Public process has been cursory at best with the project shrouded in secrecy.

The Environmental Assessment/Notice of Project Change is too incomplete to serve as a reasonable basis for a Finding of No Significant Impact.

BUSINESSES DIRECTLY AFFECTED BY
PROPOSED MBTA MAINTENANCE FACILITY

Mr. Wallace Stevens
Slade Gorton & Company, Inc.
225 Southampton Street
Boston, MA 0118

(617) 442 - 5800

Ms. Brenda Colgan
Waldo Brothers Company
202 Southampton Street
Boston, MA 02118

(617) 445 - 0400

Ms. Catherine D'Amato
Greater Boston Food Bank
99 Atkinson Street
Boston, MA 02118

(617) 427 - 5200

Mr. Alan Bressler
Agar Supply Company, Inc.
225 John Hancock Road
Taunton, MA 02780

(508) 821 - 2060

Mr. John Kinnealley
T.F. Kinnealley & Company, Inc.
1000Massachusetts Avenue
Boston, MA 02118

(617) 442 - 1200

Mr. Al Belgiorno
Mass. Wholesale Food Terminal
130 Newmarket Square
Boston, MA 02118

(617) 442 - 3584

Mr. Ted Wong
Lun Fat Produce, Inc.
90 Newmarket Square
Boston, MA 02118

(617) 427 - 3034

Mr. Paul Katsiroubas
Katsiroubas Brothers
40 Newmarket Square
Boston, MA 02118

(617) 442 - 6473

Mr. Stephen Connolly
Steve Connolly Seafood Company, Inc.
34 Newmarket Square
Boston, MA 02118

(617) 427 - 7700

Mr. Richard Barry
Pier Fish Company
10 Newmarket Square
Boston, MA 02118

(617) 541 - 4400

Mr. Joseph O'Neill
Peninsular of Boston, Inc.
71 Topeka Street
Boston, MA 02118

(617) 427 - 4401

Mr. Ed Milan
Southampton Wholesale Food Terminal
84 Newmarket Square
Boston, MA 02118

(617) 442 - 8834

Newmarket Business Association

Comment NPC78: The MBTA claims the facility will be an off-peak operation. Not for Newmarket. Not only is 4:30 to 7:30 a.m. one of our most important periods, the traffic counts did not cover that time period. The researchers chose instead periods later in the day *when the buses would not be rolling*. Their results, consequently, are inapplicable.

Response: Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, the truck operations were reviewed for the period between 4:30 and 7:30 a.m. Manual truck counts were taken, Southampton vehicle activity was videotaped, and existing data were reviewed. These analyses indicated that, although this was a busy period for trucks, auto traffic was much less and trucks could operate easily. Additionally, many large gaps in traffic were observed that would allow buses to operate efficiently without significantly impacting truck activity.

Comment NPC79: The brief study was conducted during early March, the wrong time of the year. Newmarket has a distinct, seasonal increase in activity from May to October, generally coinciding with traditional fishing season, greater availability of fresh produce and increased business at hotels and restaurants due to tourist season. Other of our businesses have a substantial increase in trucking during the last three months of the year due to Christmas.

Response: The project schedule made it difficult to collect data sufficient to quantify seasonality of truck traffic. To account for this, a conservative growth rate of 1.5 percent per year was added to all existing truck and vehicle volumes to accommodate growth and seasonality.

Comment NPC80: Decades in effect, [existing loading docks] require trailers to stage on Southampton Street. This practice is the same along all streets in Newmarket. ... Changing or hampering our companies' ability to conduct their businesses unmolested will thoroughly impeded the viability of Newmarket as a distribution area.

Response: Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, areas where trucks stand in the Newmarket area were identified through site visits. All buses turning into and out of the facility were

modeled to accommodate trucks standing on Southampton Street. The new buses at this facility are more maneuverable than existing ones and require the same width as passenger cars. Traffic is assumed to travel as it does today.

Comment NPC81: Imminent development in the area is not even included in the study ... [which] will materially impact the MBTA's ability to move its own vehicles through the area.

Response: The impact study included all projects in the area that were approved. A general background traffic growth rate was applied for five consecutive years to accommodate additional growth in the area.

Comment NPC82: The MBTA has begrudgingly offered only minimal public process.

Response: The MBTA apologizes if there is a perception that there was inadequate public and community involvement prior to filing the EA/NPC. Since that time, however, there has been extensive interaction with the Newmarket Business Association. The MBTA was able to provide additional traffic and engineering information on the site. While the MBTA was not able to accommodate all of their requests, information and responses were provided to all questions.

Comment NPC83: Among the most problematic parts of the plan is the proposed curb cut that would allow ten busses abreast to exit directly into Southampton Street traffic. Based on everyday experience, we know this will only make a bad situation worse.

Response: The maintenance facility design has incorporated several BTD enhancements to minimize impacts from vehicles exiting onto Southampton Street including the replacement of a single large curb cut with multiple smaller curb cuts. The first curb cut servicing four bus lanes has a vertical lift gate. The second curb cut services five bus lanes and the garage ramp. The third curb cut is for automobiles only. All bus pull-outs are scheduled and controlled by the MBTA dispatcher. Buses will pull out individually and in an orderly fashion. There is also an audio-visual warning system located on the Southampton Street sidewalk, which will warn pedestrians and drivers that vehicles are departing the facility.

Comment NPC84: Likewise, a suggestion to use Frontage Road for incoming busses was rejected although the MBTA already has its own curb cut there.

Response: The existing MBTA curb cut along the Frontage Road does not have a sufficient turning radius to accommodate the buses entering the maintenance facility. Expanding or otherwise relocating the curb

cut elsewhere along the Frontage Road would require a ramp to transition the vehicles from the higher Frontage Road down to the maintenance facility. Also see the response to Comment NPC67.

Comment NPC85: The proposed facility relies heavily on the Mass. Avenue and Melnea Cass Boulevard intersection which is already overburdened. Yet there are not recommendations to improve traffic flow with new signal timing, traffic direction changes, signage etc.

Response: The signal controller at Melnea Cass Boulevard and Massachusetts Avenue was recently upgraded by the Central Artery/Tunnel project. The intersection was analyzed with the additional traffic from the bus facility, approved projects in the area, and a background increase in traffic of 1.5 percent per year for five years. The analysis indicates that the operations at this intersection will not be significantly degraded.

Comment NPC86: When asked about the possibility of using the proposed Facility to store and maintain busses from Bartlett Street and Albany Street sites, the MBTA stated that there was no expansion plan for the Southampton Street location. Not true. On page 2.25 of the Environmental Assessment/Notice of Project Change, it is made clear that there is in fact an entire plan for future expansion to accommodate CNG busses from five or more other lines. What this says to us is that as CNG busses replace diesel busses systemwide, Southampton Street will become the MBTA's central maintenance facility for all such vehicles, the traffic problems will become even worse and the city's food distribution district will be crowded out.

Response: The MBTA, in addition to building a CNG facility at Southampton Street, is also building a CNG facility at Arborway. Furthermore, the MBTA is working to convert Cabot and Charlestown and perhaps other facilities to accommodate CNG. In the future, several, if not all facilities, will accommodate CNG buses, not just Southampton Street.

BG

Samuels & Associates

Real Estate
Management
& Development

Samuels & Associates Management, LLC
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Boston, MA 02115

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RECEIVED
MAY 16 2001
MEPA

May 15, 2001

William Gage
Environmental Analyst
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

VIA FAX: 617-626-1181

Re: **EOEA Project Numbers 6826 and 11701**

Mr. Gage:

The purpose of this letter is to outline concerns of South Bay Center that have developed since very recently learning of the MBTA's plans for its proposed Southampton Street Maintenance Facility / Notice of Project Change.

I was alarmed yesterday: 1) to learn of the project for the first time, and 2) that the MBTA may be planning to utilize the common areas and traffic lanes of South Bay Center.

With what little information is available to us, we have the following comments:

a) There has been limited public process. We learned of this Notice of Project Change from third parties. There was no notification from the MBTA to South Bay Center. South Bay Center has not been able to assess the full impact of this project on the shopping center, and fear that the MBTA has not addressed it at all. **NPC87**

b) We are extremely concerned that the traffic study has not addressed the operational and seasonal traffic flow of our 24-hour shopping center. We doubt that the study has accurately determined the consequential degradation of service to the entrances to South Bay Center at its intersections at Frontage Road and Southampton Street. **NPC88**

c) We are told that the MBTA has plans to access its proposed maintenance facility by traveling over the private common area parking areas and traffic lanes of South Bay Center. **NPC89**

d) The MBTA should consider expanding its existing curb cut on Frontage Road to access the proposed maintenance facility. **NPC90**

The above are only our initial concerns. As we learn more of the detail I am sure we will have more comment.

Based on what is available to us today it is evident that this Environmental Assessment/ Notice of Project Change has not been studied adequately to be

approved. We respectfully request that you deny a Finding of No Significant Impact at this time.

I look forward to an opportunity to discuss this with the MBTA and other stakeholders in the very near future.

I can be reached directly at 617.247.3434 to discuss the above .

Sincerely,

Larry G. Guilmette, RPA
S&A Northeast Management, LLC
Property Managers for South Bay Center

Cc: Jerry Matelski (Edens & Avant); Peter Engeian (S&A); Doug Husid (Goulston & Storrs)

Samuels & Associates

Comment NPC87: There has been limited public process. We learned of this Notice of Project Change from third parties. There was no notification from the MBTA to the South Bay Center. South Bay Center has not been able to assess the full impact of this project on the shopping center, and fear that the MBTA has not addressed it at all.

Response: See the response to Comment NPC82.

Comment NPC88: We are extremely concerned that the traffic study has not addressed the operational and seasonal traffic flow of our 24-hour shopping center. We doubt that the study has accurately determined the consequential degradation of service to the entrances to South Bay Center at its intersections of Frontage Road and Southampton Street.

Response: The South Bay Center entrance on Southampton Street is the only one impacted by the bus facility. Vehicle counts and operational analysis were performed at this location for existing and future conditions. The results indicated that this entrance would not be significantly impacted.

Comment NPC89: We are told that the MBTA has plans to access its proposed maintenance facility by traveling over the private common area parking areas and traffic lanes of South Bay Center.

Response: The NPC indicates that the return trip for the buses on the South Boston route will likely use the portion of the South Bay Center ring road from southbound frontage road to Southampton Street. The buses will use the existing roadway and will not cross parking areas.

Comment NPC90: The MBTA should consider expanding its existing curb cut on Frontage Road to access the proposed maintenance facility.

Response: The existing MBTA curb cut along the Frontage Road does not have a sufficient turning radius to accommodate the buses entering the maintenance facility. Expanding or otherwise relocating the curb cut elsewhere along the Frontage Road would require a ramp to transition the vehicles from the higher Frontage Road down to the maintenance facility. Also see the response to Comment NPC67.

SLADE GORTON & CO., INC.
"The Finest and Widest Line of Seafood Anywhere"

05-15-01 P03:07 IN

May 15, 2001

RECEIVED
MAY 15 2001
MEPA

Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

Ref.: EOEA project numbers 6826 and 11701

Dear Mr. Durand,

We are appalled by the lack of process by the MBTA with its proposed Southampton Street location of the Silverline Transit way facility and strongly urge that you not issue a Finding of No Significant Impact.

While the lack of process by MBTA in holding public hearings with constituents in the Newmarket Business area may not be a factor for your consideration, the incompleteness of their traffic study certainly should be reason alone to require the MBTA to proceed as if they will have significant impact on this business area. **NPC91**

Please consider that their study was of a limited section of Southampton Street, and that their evaluation of that street was as if the street was a through street in the conventional sense. Southampton Street is a working street, with heavy tractor-trailers stopping to offload and load goods at a number of locations along the street, three of which are directly adjacent to the proposed MBTA facility. These trucks are the livelihood of our respective businesses, and the reported threat to ticket and tow them if they interfere with the MBTA busses is not likely going to positively impact our decisions about retaining our businesses in this area.

Our company has been taken by eminent domain on two previous occasions in Boston. The construction and operation of this proposed MBTA facility on Southampton Street will result in a virtual taking of our business for the third time in Boston and will also put out of the business Waldo Bros., the oldest operating business in this area. We very much need the support of your office to not issue a Finding of No Significant Impact for this project. **NPC92**

Sincerely

Wallace R. Stevens
President

225 Southampton Street, Boston, MA 02118-2715 Tel. 617-442-5800 Fax 617-442-9090

Slade Gorton & Co., Inc.

Comment NPC91: [T]he incompleteness of ... [the MBTA's] traffic study certainly should be reason alone to require the MBTA to proceed as if they will have significant impact on this business area.

Response: A concern was raised that the traffic analysis did not adequately describe truck activity in the area. Therefore, subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, businesses were interviewed, trucks were manually counted, and existing truck data were reviewed. The additional analysis indicates that the bus facility will not significantly impact area businesses.

Comment NPC92: The construction and operation of this proposed MBTA facility on Southampton Street will result in a virtual taking of our business ....

Response: The NBA was identified by the City of Boston and the BTD as the group to represent the public in the design review process. The NBA is a group of business local to the project including Waldo Brothers, Slade Gorton & Co., and the MBTA Police. Ongoing coordination meetings are held with representatives of the NBA, BTD, the Mayor's office, BRA, and the MBTA to discuss the maintenance facility design and construction, including traffic-related issues and mitigation.

BG

SolutekSolutekSolutekSolutek **Solutek** SolutekSolutek

May 10, 2001

Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

RECEIVED
MAY 15 2001
MEPA

REF: EOEA project numbers 6826 and 11701

Dear Mr. Durand,

I was shocked to learn about the MBTA's proposed Southampton Street Maintenance Facility. They have submitted an Environmental Assessment/Notice of Project Change in order to secure a "Finding of No Significant Impact."

PLEASE DON'T ISSUE YOUR APPROVAL!

The MBTA's submission is full of information and mis-information which have been chosen by them to make it look like their proposed new bus maintenance and repair facility will have a negligible impact on our industrial area. Nothing could be further from the truth. In fact, if allowed by you, the MBTA's proposed bus barn could destroy our already fragile business neighborhood, and wipe out the jobs of over 15,000 residents of Boston and surrounding communities.

Please consider the following:

- Hundreds of MBTA busses and employees' cars coming and going will gridlock Southampton Street during the early morning hours, the peak traffic time for many of our existing businesses. **NPC93**
- This heavy traffic impact will be even worse at certain times of the year, because of the seasonali of some of our neighbors' businesses. **NPC94**
- The traffic data that the MBTA presented does not take into account other new projects that are about to be kicked off in this neighborhood that will add large numbers of cars and shuttle busses to the area. **NPC95**
- Existing businesses on Southampton Street won't be able to use their loading docks. **NPC96**
- The Mass. Ave – Melnea Cass intersection at Crosstown is already saturated. The MBTA's heav new bus traffic will freeze this key crossroad. **NPC97**
- Southampton Street is an important route used by ambulances headed for Boston Medical Center. Busses plugging this vital artery will have a very serious negative impact on public health. **NPC98**
- The environmental effects of the exhausts from the current diesel busses and emissions from new busses in the future could be disastrous and must be studied carefully. **NPC99**

I respectfully urge you NOT to issue a Finding of No Significant Impact.

Sincerely,

SOLUTEK CORPORATION

Marlowe A. Sigal, President

P.S. You might recall that we spent a week together in Mexico City & Monterrey on a Massachusetts Trade Mission.

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Solutek

Comment NPC93: Hundreds of MBTA busses and employees' cars coming and going will gridlock Southampton Street during the early morning hours, the peak traffic time for many of our existing businesses.

Response: The employee and bus trips reported occur over a 24-hour period. The peak hours for the bus facility occur outside of peak hours for Southampton Street. The bus facility will not cause gridlock on Southampton Street.

Comment NPC94: This heavy traffic impact will be even worse at certain times of the year, because of the seasonality of some of our neighbors' businesses.

Response: The project schedule made it difficult to collect data sufficient to quantify seasonality of truck traffic. To account for this, a conservative growth rate of 1.5 percent per year was added to all existing truck and vehicle volumes to accommodate growth and seasonality.

Comment NPC95: The traffic data that the MBTA presented does not take into account other new projects that are about to be kicked off in this neighborhood that will add large numbers of cars and shuttle busses to the area.

Response: The impact study included all projects in the area that were approved. A general background traffic growth rate was applied for five consecutive years to accommodate additional growth in the area.

Comment NPC96: Existing businesses on Southampton Street won't be able to use their loading docks.

Response: The buses do not require any more of the roadway for travel or for access/egress to the facility. The existing travel patterns on Southampton Street will not change with the introduction of the bus facility.

Comment NPC97: The Mass. Avenue - Melnea Cass intersection at Crosstown is already saturated. The MBTA's heavy new bus traffic will freeze this key crossroad.

Response: The signal controller at Melnea Cass Boulevard and Massachusetts Avenue was recently upgraded by the Central Artery/Tunnel project. The intersection was analyzed with the additional traffic from the bus facility, approved projects in the area, and a background increase in traffic of 1.5 percent per year for five years. The analysis indicates that the operations at this intersection will not be significantly degraded.

Comment NPC98: Southampton Street is an important route used by ambulances headed for Boston Medical Center. Busses plugging this vital artery will have a very serious negative impact on public health.

Response: Southampton Street is approximately 50-feet wide. State law requires that vehicles pull to the side of the road to allow emergency vehicles to pass. The MBTA buses adhere to this law.

Comment NPC99: The environmental effects of the exhaust from the current diesel busses and emissions from new busses in the future could be disastrous and must be studied carefully.

Response: The air quality impacts were presented as part of the approved NPC.

SOUTH BOSTON SEAPORT TMA
TRANSPORTATION MANAGEMENT ASSOCIATION

BG

RECEIVED
MAY 21 2001
MEPA

05-18-01 P03:25 IN

May 15, 2001

Mr. Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street
Suite 900
Boston, MA 02114

Dear Mr. Durand,

I am writing in response to the *Environmental Assessment/Notice of Project Change for the Silver Line Maintenance Facility on Southampton Street- EOEA file #6826 and #11701.*

The South Boston Seaport Transportation Management Association, member companies, and over 12,000 area commuters are depending on a timely completion of Silver Line construction, and a quick start of service. Major decisions about the locating of office space and employees have been made by area businesses and employees – assuming transit access. And so it is vital that we do everything possible to help the MBTA continue to move this project forward on schedule.

The success of the Silver Line needs a maintenance facility designed and built to support the new equipment and to deliver service reliability. The site must be geographically sited to permit quick and convenient service. The Seaport TMA supports the MBTA's request to construct a maintenance facility on Southampton Street in Boston. The proposed site meets the maintenance, storage, and operational requirements of the system, while utilizing a site currently owned by the MBTA. I understand that there are still area merchant issues about the site which must be addressed before plans are finalized. However, on behalf of the Seaport TMA, I encourage EOEA to approve the Notice of Project change in anticipation of appropriate commitments to mitigate adverse impacts to local businesses.

NPC100

Thank you for the opportunity to comment on the Projects #6826 and #11701. Please let me know if you have any questions; I can be reached at (617) 563-2559.

Sincerely,

Erin Clarke Gorden
Executive Director

164 NORTHERN AVENUE • Z1A • BOSTON, MASSACHUSETTS 02210

South Boston Seaport TMA

Comment NPC100: The Seaport TMA supports the MBTA's request to construct a maintenance facility on Southampton Street in Boston. The proposed site meets the maintenance, storage, and operational requirements of the system, while utilizing a site currently owned by the MBTA. I understand that there are still area merchant issues about the site which must be addressed before plans are finalized.

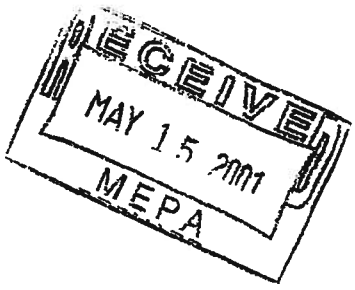
Response: Comment noted.

BG

WALDO BROS.

BRICK • CONCRETE SPECIALTIES • BUILDING MATERIALS

To: **MaryBeth Mello**
Deputy Regional Administrator
Federal Transit Administration
55 Broadway
Cambridge, MA 02171



Secretary Robert Durand
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

CC: Shirley Colgan, Herbert Farmer III, Thomas Galligan

From: **Brenda Colgan**
Waldo Bros. Company
202 Southampton Street
Boston, MA 02118

Date: 5/15/01

Re: Comments Regarding EOEA #6826 and EOEA #11707

Waldo Bros. Company is requesting that a "Finding of No Significant Impact" be denied for the Environmental Assessment and Notice of Project Change relating to the Silver Line Maintenance Facility on Southampton Street projects: EOEA #6826 and EOEA #11707.

Attached are the specific questions related to each section of Environmental Assessment/Notice of Project Change. In our opinion the data and analysis are incomplete at best and we request your assistance in requesting the conclusions and supporting documentation be resubmitted when the realities of the actual environment/neighborhood are incorporated.

The proposed Silver Line maintenance facility will be located in the Newmarket Business Area. The Newmarket neighborhood is the largest remaining industrial trucking/distribution area for the City of Boston. If the Silver Line Maintenance Facility disrupts our businesses, many will relocate or close. The impacts will be felt through lost jobs and higher pricing of our goods to Boston businesses/consumers.

The company which will be most impacted by this maintenance facility is my families company, Waldo Bros. Company. Waldo Bros. has been located on the corner of Southampton Street and Moore Street since 1869. It is a family owned business, which services the Boston construction industry, where average employee tenure approaches 20 years. It is an icon to the building industry. This proposed maintenance facility would significantly impact Waldo Bros. to the point where we may not survive the construction of it never mind the on-going post-construction impact. Sadly, this fact would never make it into the Environmental Assessment/Notice of Project Change. There's no regard to disruption of business causing the loss of a company. Ninety percent of Waldo Bros. Company's business is done through our loading docks on Moore Street where we have the right

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through ownership and past court decisions to do it. This fact didn't make it into this assessment because no one bothered to ask us or study the movement on Moore Street during the construction season. No one bothered to analyze what the true impact would be of taking away our ownership and historic use of Moore Street. It's only a street, right? Wrong, Moore Street is our livelihood for a business that is already strapped for space. Yet on page 5-3 someone had the audacity to write " *The development of the maintenance facility will have a minimal impact on the operation of Waldo Brothers, Inc."* as well, in regards to our use of Moore street; *"This practice goes beyond their current rights in Moore Street and will not be compatible with the MBTA's needs....."* My grandfather and my father are probably turning in their graves learning that their lives work in building and sustaining this company through the depression and the downturn of the eighties can come down to a misinformed soul who wrote this paragraph without a second thought of putting a company out of business because our operation isn't compatible with the MBTA's needs!

At last Thursday nights Public Meeting regarding this Environmental Assessment, the feedback received made it clear that:

- An overall master plan for MBTA maintenance facilities for the State of Massachusetts should be established and monitored by your agencies.
- That MBTA existing land located closer to the beginning of each "line" be utilized appropriately for buses or trains servicing that area to minimize deadheading and disruption to neighborhoods not serviced by that mass-transit vehicle.
- The MBTA should stop building new maintenance facilities in Boston. Instead utilize existing maintenance facilities currently filled with suburban buses deadheading into Boston. Keep the suburban buses in the suburbs. Store Boston buses in Boston.
- If the three segments of the now proposed Silver Line will be connected, it should be "light rail" not buses.
- The neighborhoods impacted should be adequately involved and have adequate time for input prior to any assessment being completed.
- The traffic study and environmental assessment should reflect the local Newmarket trucking realities not simulated models.
- Alternative access routes to the proposed MBTA site should be explored and analyzed before this Assessment/Project Change is approved.

Overall, the Environmental Assessment/Notice of Project Change is too incomplete to allow the MBTA to move further into the approval process enabling this plan in its current form to become a reality.

Sincerely,

Brenda Colgan

MAIN OFFICE: 202 SOUTHAMPTON STREET • BOSTON, MA 02118-2789 • (617) 445-3000 • FAX (617) 427-5691
BRANCH: 595 NUTMEG ROAD NORTH • SOUTH WINDSOR, CT 06074-2461 • (860) 289-9500 • FAX (860) 291-8500

Waldo Bros. Company Comments/Questions

Overall:	Why was the public comment period shortened for these projects? Why was neighborhood input non-existent before this report was completed?	**NPC101**
Specific: Page 1-4	What will the traffic impact be of a constructed transit priority lane on Washington St between Melnea Cass Boulevard and the Mass Pike on the Melnea Cass /Mass Ave intersection when the new traffic pattern of buses from Southampton Street are included?	**NPC102**
Page 2-1	What impact will there be on the Southampton Street facility if the Transitway -> Washington Street and South Station -> NE Medical Center vehicle type is determined to be CNG? Where is this impact in the traffic and capacity information?	**NPC103**
Page 2-1	One of the site selection criteria's is "Minimization of Deadheading mileage". What is considered good or acceptable Deadhead mileage per bus for a site to meet the criteria of selection? Regarding the selection of Southampton Street location, how much Deadhead mileage is considered good or acceptable when 35% or 27 buses for this facility would be considered deadheading? What is the definition and specific characteristics of each site selection criteria to give a site a favorable rating or low rating? What is the acceptable rating and characteristics for each criteria that makes it suitable for selection?	**NPC104**
Page 2-2	There is no mention of the impact of the proposed site on other businesses. Where is the impact analysis to Slade Gorton and Boston Lamb and Veal located across the street from the proposed site? There is no mention of AK Media in this section. What is the impact and mediation for AK Media? Where are the impact statements during construction phases of the project to	**NPC105**

existing businesses? Where is the traffic analysis of what the construction phases will do to Moore Street and Southampton Street traffic and usage?

Based upon information received at the Public Hearing the traffic study is flawed. The study doesn't take into account the reality of truck traffic and truck maneuvers on Southampton Street. The trucks have to stage and access their loading docks bringing traffic to a complete standstill numerous times per day. What are the results of this impact on the traffic analysis when including this reality?

Newmarket is a distribution point. When 1/2 of the proposed buses are due to return, so do many of Newmarkets' trucks for their second and third runs of the day.

The traffic study was performed during the Newmarket's low season. Newmarket is influenced by season and college commuter traffic. The height of Newmarket is May - November when the colleges are in session. The hours of Newmarket are 4:30am - 5:00pm. The traffic study should include these variables.

Page 2-4 Regarding the two Moore Street entrances mentioned, only one is shown in figure 2-2. Where is the other? Please show on the plan and explain where these entrances are and what they will be used for? **NPC106**

South Bay Avenue is mentioned and shown on the plans. What traffic flow is being considered for South Bay Avenue? It is currently out of use and closed off to traffic. How would the buses access South Bay Avenue? (ie via Atkinson?) What would South Bay Avenue be used for?

Why wasn't Frontage Road considered or analyzed for access to and from the MBTA site for the bus routes? This access point would eliminate the Southampton Street disruption and Moore Street mitigation issues. Please take this into consideration and provide the analysis of these access points.

No location is determined of 5,0000 gallon gas tank for MBTA fleet use. Where are the potential locations and safety impacts to the abutters?

If the Southampton facility is to service CNG buses, what are two 10,000 gallon diesel tanks needed for? What size of fleet could the large diesel fuel tanks service? Ie; expansion capability?

Page 2-6 What are CNG buffer tanks, what are they used for and what size fleet can the two 20,0000-gallon CNG buffer tanks service? **NPC107**

What are the safety issues and precautions for the abutters for each type of fuel tank?

What are the potential risks of explosion of the tanks and the area impact including the buses if it were to happen?

What are the utility impacts of the site especially power? The Newmarket area has brownouts already in the summer months.

Page 2-7 What is Peak Service referring to and what are the exact hours? What are the non-peak hours? **NPC108**

How many buses are planned to queue/stage on Moore Street (min and max) hours of queueing/staging, duration of queuing?
Why would the buses queue? What is the impact to Moore Street if some buses have to queue and others do not?

What will be the impact to Waldo Bros. Company of queued buses on Moore Street?

What will be the impact to Southampton Street of queued buses?

How will the buses queue on South Bay Avenue when it isn't open? What are the plans for South Bay Avenue?

How many buses will be returning and exiting the maintenance facility in 1/2 hour increments to understand the impact to Moore Street and Southampton Street traffic?

What is the noise impact to Waldo Bros. Company and abutters of this facility?

Page 2-10 Regarding the pullout and pullback analysis, what growth factor was used in the analysis? What is the worse case and best case scenarios for traffic? **NPC109**

How much deadhead mileage is occurring on a daily basis and the cost of it in comparison to other alternative site locations for all routes?

Page 2-11 Regarding the return of the buses servicing the South Boston Waterfront/Logan; the report mentions the route would be reversed for Deadhead trips. What is the exact reverse route to access Southampton Street and Moore Street? It is not defined nor studied for traffic impacts. If the return trip is via the expressway south to the South Bay Plaza, the set of lights Expressway/South Bay Plaza nor the stop sign within South Bay Plaza are incorporated into the traffic analysis. Also, I don't believe the traffic analysis incorporated for Southampton Street/South Bay Plaza traffic light was adequately studied or analyzed for pull-out and pull-back traffic. Please provide this analysis and data. **NPC110**

Page 2-17 Regarding the return of the buses servicing the Downtown Boston it mentions a return trip routing of Temple to Tremont to Stuart to Kneeland to I-93 South ramp to Southampton Street to the maintenance facility. The I-93 South ramp doesn't connect to Southampton Street unless it goes through South Bay Plaza. This route wasn't analyzed or studied for traffic and disruption. There is a light on the I-93 south ramp , a stop sign within South Bay Plaza and another light on the corner South Bay Plaza and Southampton Street. Neither was in the analysis. **NPC111**

Page 3-2 The alternative site of West First Street was deemed unsuitable because the first phase of the Silver Line between Dudley Square and downtown Boston would be located at a "substantial distance from this site". Where is the data and analysis of this in comparison to the current location, all the proposed routes plus the additional deadhead mileage? **NPC112**

Where is the data and comparative analysis of the West First Street, Arborway Yard in comparison to the Southampton Street alternative for all phases of the Silver Line?

Page 3-5 Where is the data and comparative analysis of all five sites for the AITC along with the full Silver Line in comparison to the Southampton Street alternative for all phases of the Silver Line? Now that all three projects are combined into one, where is the new analysis of all five and the conclusions? **NPC113**

What were the main factors in disqualifying each and every alternative site to Southampton Street? What were the cost differences to the construction and ongoing operations for each?

Page 3-6 What are the air quality impacts of deadheading to the West First Street location in comparison to the Southampton Street location? **NPC114**

Where are the inputs from the Newmarket Community to the proposed Southampton Street facility? When, where and how were they contacted before the assessment as a feasible site was determined?

Page 3-7 Why is the "Compatibility with adjacent land uses for West First Street marked as "low performance" when listed as compatible earlier in the document? **NPC115**

What were the mitigating factors in categorizing each alternative site low or high in Table 3.2? Please list out the differences for each site and each difference.

This section states the MBTA only needs to "obtain the necessary rights to Moore Street" from Waldo Bros. Company. This is not true. The MBTA will need to acquire Waldo Bros. property or mitigate the impact of their use of Moore Street.

Where are the Assessment of Alternative access routes into the Southampton Street proposed facility? (South Bay Avenue and Frontage Road and any other road except Moore Street?

Why is the Southampton Street location considered when the Newmarket community isn't serviced by the Silver Line?

Why is an easement necessary from AK Media? Where is this access necessary?

Page 4-1 This facility doesn't have minimal transportation system impacts. It has major impacts to this community. **NPC116**

What is the impact to the Newmarket area throughout the pullouts and pullbacks? Newmarket's peak hours are different than commuter peak hours.

Page 4-2 What traffic pattern was studied for the South Bay Center and Southampton Street intersection? Was it considered for pull backs taking a left on Southampton Street from the South Bay Center? **NPC117**

Where is the intersection study for:

Southampton and Dorchester Avenue
I-93 South exit ramp and South Bay Plaza
South Bay Plaza impact at stop sign
South Bay Plaza intersection and Southampton Street for Pullback traffic.

Page 4-5 Where is the seasonality component used for the traffic study of Newmarket? Why was the worst time of year to gain a complete picture of this area and the traffic pattern done? **NPC118**

Where is the data that supports the type of historical traffic of queue trucks for loading docks on Southampton Street and Moore Street studied?

Chart 4-2 shows traffic increase from 2-3pm when the buses will be deployed again. What is the impact from 2-5pm as all our trucks are returning to be reloaded during this time? What is the impact for unplanned events like ambulances and fire trucks, which occur quite frequently along Mass Avenue and Southampton? **NPC119**

Table 4-3 This chart depicts four LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton? **NPC120**

Table 4-2 Where is the impact for the stop sign within South Bay Plaza? Where is queuing for South Bay Center taking left onto Southampton St.? **NPC121**

Table 4.4 This chart depicts two LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton? **NPC122**

Table 4-5 This chart depicts four LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton? **NPC123**

Table 4.9 This chart depicts two LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton? **NPC124**

Page 4-10 What will be the impact to Melnea Cass traffic of the Washington Street dedicated Silver Line lane? Will it be worse when this is in service than it is today along with the bus traffic on Southampton? **NPC125**

The traffic at 4:45 - 5:45 is significant already. Deployment of buses is from 2-4pm. Will the 4pm deployment cause any more impact to the 4:45 commute?

The study discusses commuter peak hours, Newmarket is all trucks with fewer cars on the off-peak commuter hours. What is the impact to the historical business of truck traffic and loading operations?

All data provided by this report for pullouts and pullbacks is an estimate. What happens to the analysis if the distribution times are extended by 30-40 minutes at Newmarket peak season May - October?

Page 4-11 Cross Town planning development wasn't included in the study. What will the impact be with this project along with the other development sites not included (Biosquare and Med Services?) **NPC126**

Page 4-16 Nothing is mentioned in the report to include Newmarket needs to conduct business in off-peak commuter traffic. What will be the impact during Newmarket peak season plus colleges in session to all hours of the day to conduct loading and unloading on Southampton Street? What are the delays when all this occurs infront of the proposed site versus and at each intersection? **NPC127**

Page 4-17 The wide curb cuts will hamper truck staging on Southampton Street? Where is the impact of this to the local businesses? **NPC128**

The Southampton Street/Newmarket intersection is significantly impacted at peak hours. What will be done to mitigate this delay?

Page 5-3 The development of the maintenance facility will have MAJOR impact on Waldo Bros. Company. 90% of Waldo Bros. loading and unloading of trucks is done on our Moore Street loading docks. If the mitigation process for the TAKING of Moore Street isn't sufficient to completely rearrange Waldo Bros. Company buildings and property, Waldo Bros. Company will be out of business. Additionally, Waldo Bros. Company may not survive the construction impact of this project based upon the information we currently have from the MBTA. **NPC129**

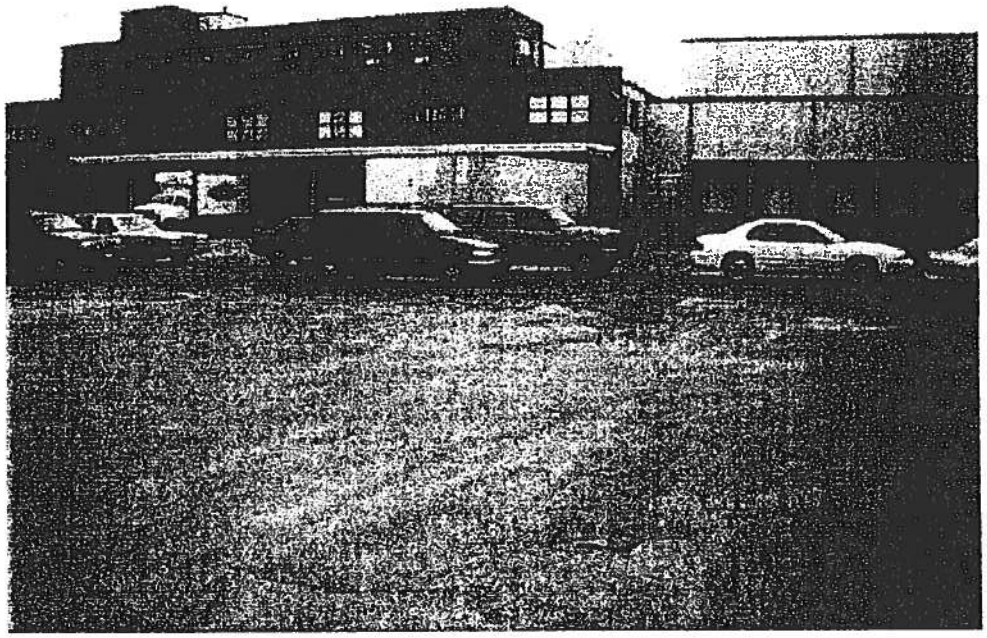
Waldo Bros has every right to park, load and unload on Moore Street as it has been doing for actively for 22 years but overall 132 years.

The construction impacts to Waldo Bros. Company haven't been considered nor agreed to as yet.

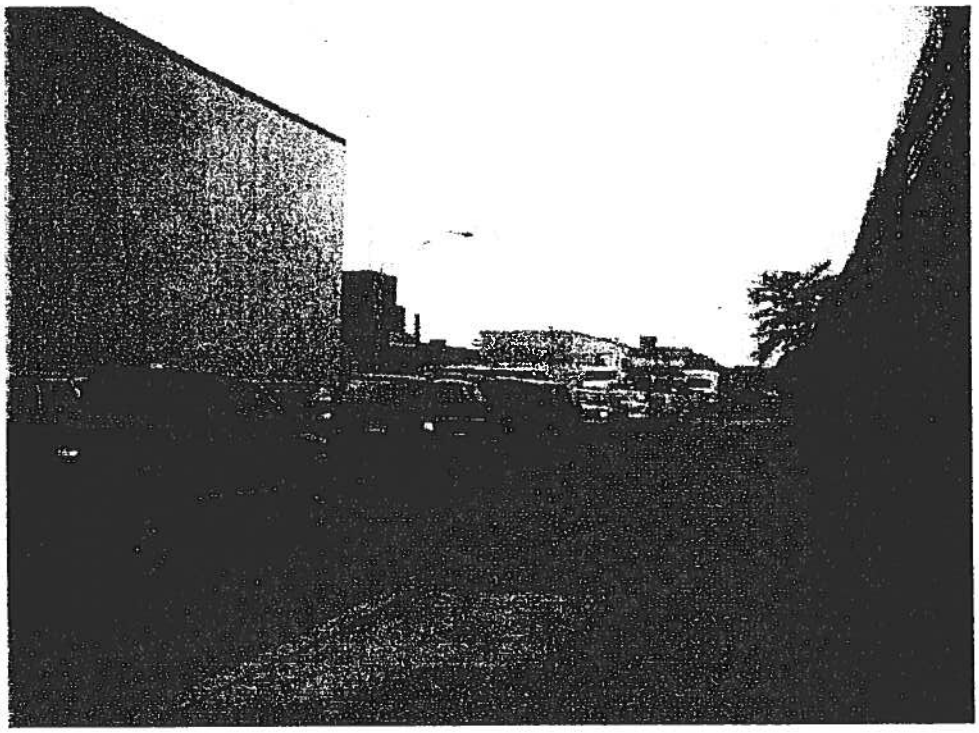
Page 5-4 What are the emissions results compared to utilizing the alternative locations instead of Southampton Street? **NPC130**

Page 5-5 Newmarket area currently experiences brownouts. What will this facility do to this situation? What will be done to not add to the problem? **NPC131**

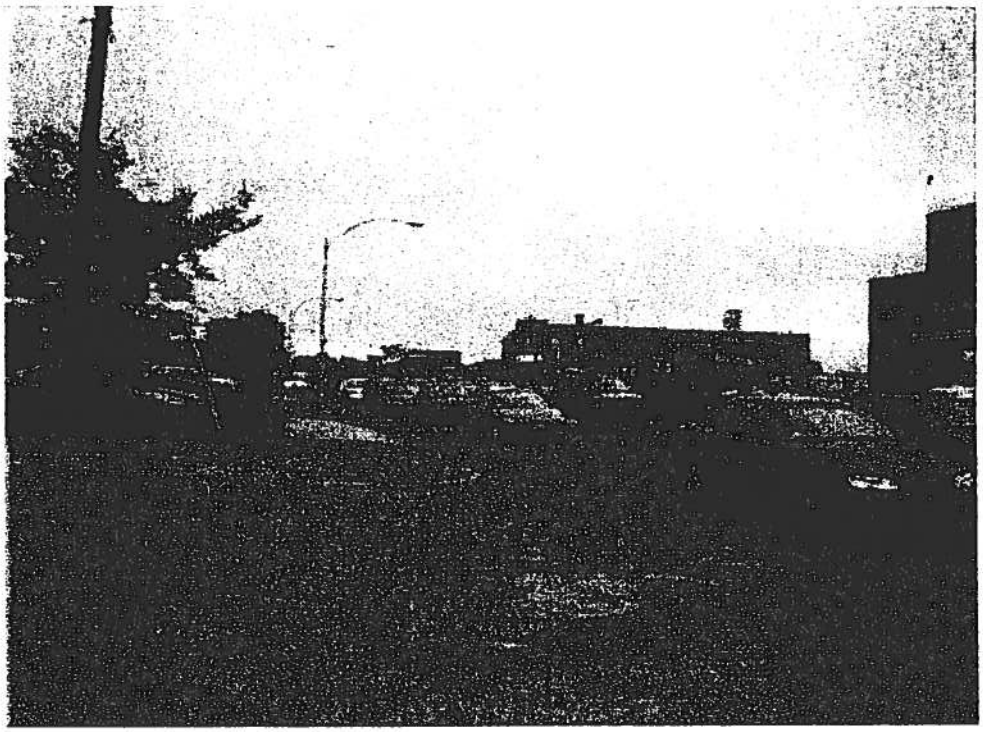
Page 5-15 Very poor Business Activity section. Needs more study and depth to all the Newmarket business but especially Waldo Bros. Company, Slade Gorton and Boston Lamb and Veal. **NPC132**



VIEW FROM MOORE STREET LOOKING OUT ONTO SOUTHAMPTON STREET. TRAFFIC AT STANDSTILL FROM SOUTH BAY PLAZA to MELNEA CASS.



VIEW LOOKING WEST DOWN SOUTHAMPTON STREET FROM CORNER OF MOORE STREET. TRAFFIC AT STANDSTILL TO MELNEA CASS/ MASS AVE.



VIEW FROM CORNER OF SOUTHAMPTON/ MOORE STREET LOOKING EAST TO SOUTH BAY PLAZA. TRAFFIC AT STANDSTILL.

Waldo Brothers

Comment NPC101: Why was the public comment period shortened for these projects? Why was neighborhood input non-existent before this report was completed?

Response: The public comment period was not shortened. According to the MEPA regulations, a 20-day comment period is required for an NPC. As for the neighborhood input, the MBTA apologized if neighbors feel there was inadequate involvement prior to submittal.

Comment NPC102: (Page 1-4) What will the traffic input be a constructed transit priority lane on Washington Street between Melnea Cass Boulevard and the Mass Pike on the Melnea Cass/Mass Avenue intersection when the new traffic pattern of buses from Southampton Street are included?

Response: There will be a transit priority lane north of Melnea Cass to south of the Mass Turnpike.

Comment NPC103: (Page 2-1) What impact will there be on the Southampton Street facility if the Transitway – Washington Street and South Station – NE Medical Center vehicle type is determined to be CNG? Where is this impact in the traffic and capacity information?

Response: The vehicle type for this portion of the Silver Line between South Station and the New England Medical Center has yet to be determined. A future filing will address the tunnel alignment alternatives for that area and the vehicle type decision, and the impact to the maintenance facility will be addressed and evaluated at that time.

Comment NPC104: (Page 2-1) One of the site selection criteria is "Minimization of Deadheading mileage." What is considered good or acceptable Deadhead mileage per bus for a site to meet the criteria of selection? Regarding the selection of Southampton Street location, how much Deadhead mileage is considered good or acceptable when 35 percent or 27 buses for this facility would be considered deadheading?

What is the definition and specific characteristics of each site selection criteria to give a site a favorable rating or low rating? What is the acceptable rating and characteristics for each criteria that makes it suitable for selection?

Response: There will always be a certain amount of deadheading since not all points begin and end at or near the facility. There is no exact criteria for the maximum amount of deadheading allowed. The attempt is to balance the desire to minimize deadheading against other competing interests.

Comment NPC105: (Page 2-2) There is no mention of the impact of the proposed site on other businesses. Where is the impact analysis to Slade Gorton and Boston Lamb and Veal located across the street from the proposed site?

There is no mention of AK Media in this section. What is the impact and mediation for AK Media?

What are the impact statements during construction phases of the project to existing businesses? Where is the traffic analysis of what the construction phases will do to Moore Street and Southampton Street traffic and usage?

Based upon information received at the Public Hearing the traffic study is flawed. The study doesn't take into account the reality of truck traffic and truck maneuvers on Southampton Street. The trucks have to stage and access their loading docks bringing traffic to a complete standstill numerous times per day. What are the results of this impact on the traffic analysis when including this reality?

Newmarket is a distribution point. When half of the proposed buses are due to return, so do many of Newmarket's trucks for their second and third runs of the day.

The traffic study was performed during the Newmarket's low season. Newmarket is influenced by season and college commuter traffic. The height of Newmarket is May-November when the colleges are in session. The hours of Newmarket are 4:30 a.m. to 5:00 p.m. The traffic study should include these variables.

Response: Subsequent to the NPC filing, a supplemental traffic analysis report was performed. It was presented to the public design review process identified in the response to Comment NPC1 at a July 17, 2001 meeting attended by representatives of the NBA, City of Boston, BTD, BRA, and the MBTA.

The maintenance facility will have no impact to AK Media. AK Media retains their property on the north end of the maintenance facility with frontage and access from Moore Street.

The supplemental traffic analysis report indicates that most of the trucks maneuvering to loading docks are single-unit trucks that do not need as much room to load.

Currently, several bus routes do coexist with the truck activities on Southampton Street. Since Southampton Street is 50-feet wide, and the new articulated buses are more maneuverable than existing buses, any additional disruption to truck loading and general traffic from the new buses will not be substantial.

Approximately 30 buses will return during midmorning, staggered over a two-hour period. The return of buses will not significantly impact returning trucks.

A conservative growth rate of 1.5 percent per year was added to all existing truck and vehicle volumes to accommodate growth and seasonality. At the time traffic data were collected, most Boston colleges were in session. Southampton Street is not a widely used route for Boston-area college commuters or to the maintenance facility via South Bay Avenue.

Comment NPC106: (Page 2-4) Regarding the two Moore Street entrances mentioned, only one is shown in Figure 2.2. Where is the other? Please show on the plan and explain where these entrances are and what they will be used for?

South Bay Avenue is mentioned and shown on the plans. What traffic flow is being considered for South Bay Avenue? It is currently out of use and closed off to traffic. How would the buses access South Bay Avenue? (i.e., via Atkinson?) What would South Bay Avenue be used for?

Why wasn't Frontage Road considered or analyzed for access to and from the MBTA site for the bus routes? This access point would eliminate the Southampton Street disruption and Moore Street mitigation issues. Please take this into consideration and provide the analysis of these access points.

No location is determined of 5,0000 [*sic*] gallon gas tank for MBTA fleet use. Where are the potential locations and safety impacts to the abutters?

If the Southampton facility is to service CNG buses, what are two 10,000 gallon diesel tanks needed for? What size of fleet could the large diesel fuel tanks service? I.e., expansion capability?

Response: There are two entrances to the west side of the maintenance facility from Moore Street. The first is on the north end at the intersection

of South Bay Avenue. The second is at the mid point of Moore Street. Both entrances will be utilized to accommodate emergency vehicles. The mid point entrance is a secondary access/egress point and will only be used in event the north entrance or any exit is inadvertently blocked.

There is currently no planned traffic flow from or to the maintenance facility via South Bay Avenue.

The Frontage Road access option was studied in conjunction with the public design review process identified in the response to Comment NPC1. The option was presented at a July 17, 2001 meeting attended by representatives of the NBA, City of Boston, BTD, BRA, and the MBTA in the form of a design layout and construction estimate. It was determined the magnitude of the cost and FHWA permitting issues rendered the option as not feasible.

The gasoline fueling system and tank has been eliminated from the maintenance facility project.

The diesel fuel tanks are for the dual mode Transitway vehicles (overhead catenary/diesel buses). They are sized to accommodate the programmed fleet size of 32 vehicles. There is no expansion planned for this maintenance facility.

Comment NPC107: (Page 206) What are CNG buffer tanks, what are they sued for and what size fleet can the two 20,0000-gallon [*sic*] CNG buffer tanks service?

What are the safety issues and precautions for the abutters for each type of fuel tank?

What are the potential risks of explosion of the tanks and the area impact including the buses if it were to happen?

What are the utility impacts of the site especially power? The Newmarket area has brownouts already in the summer months.

Response: There are three 65 CF/Water Volume each or approximately 22,000 SCF@4500 PSIG each. The vessels are used as a buffer between the compressor and the dispenser. During bus fueling, the CNG is first drained out of the vessel. Then it is direct compressed to the bus from the compressor. Between buses, the compressor refills the buffer vessels.

NFPA 52 is the criteria for the site safety requirements for these vessels. The vessels are built in accordance with Section 8 of the ASME code.

Extensive testing is done during the manufacturing process to minimize risk. The risks are minimal because of the code and safety requirements mentioned above.

All electrical power for the final configuration of the maintenance facility is fed from the MBTA power grid. The MBTA owns and operates turbines to supply additional electrical power during peak periods. Electrical system brownouts in the Newmarket area are controlled by NStar and not the MBTA. Keyspan will transmit natural gas to the CNG fueling system via a new pipeline independent of the local service lines. The project will connect to existing BWSC water/sewer and storm drainage lines located in Southampton Street. No capacity-related upgrades to the BWSC system are required.

Comment NPC108: (Page 2-7) What is Peak Service referring to and what are the exact hours? What are the non-peak hours?

How many buses are planned to queue/stage on Moore Street (min and max), hours of queuing/staging [*sic*], duration of queuing? Why would the buses queue? What is the impact to Moore Street is some buses have to queue and others do not?

What will be the impact to Waldo Bros. Company of queued buses on Moore Street?

What will be impact to Southampton Street of queued buses?

How will the buses queue on South Bay Avenue when it isn't open? What are the plans for South Bay Avenue?

How many buses will be returning and exiting the maintenance facility in half-hour increments to understand the impact to Moore Street and Southampton Street traffic?

What is the noise impact to Waldo Bros. Company and abutters of this facility?

Response: Peak service is the period of time when vehicles from the maintenance facility will service routes during the highest commuter demand ("commuter rush hour"). Although the detailed operating plans for all the routes serviced by the facility have not yet been finalized, the peak service hours are expected to be roughly from 7:00 a.m. to 8:30 a.m. and from 4:00 p.m. to 6:30 p.m. Non peak service hours are the remaining revenue operation hours. The overall revenue operation day will run roughly from 5:15 a.m. to 1:00 a.m. collectively for the fleets operating out of this facility.

There is no planned queuing of maintenance facility vehicles on Moore Street. The surface rights on the 34 Moore Street (LMB) property has been acquired by the MBTA for vehicle queuing and storage.

Therefore there will be no impact to Waldo Bros. Company or Southampton Street from queued vehicles on Moore Street.

There is no maintenance facility vehicular traffic planned for South Bay Avenue.

The peak-hour volume is the maximum number of vehicles that pass a point on a roadway during a period of 60 consecutive minutes. Generally, a morning and afternoon peak occurs near the typical commuter travel times. Non-peak hours are all other hourly volumes. For this study, the morning peak was determined to be 7:30 to 8:30 a.m. and the afternoon was determined to be 4:45 to 5:45 p.m.

Buses will return to the site from approximately 8:30 to 10:30 a.m. and 7:30 to 10:30 p.m. Although it is difficult to accurately define how many buses will return in half-hour increments it is estimated that 15 buses will return from 8:30 to 9:30 a.m., 15 buses from 9:30 to 10:30 a.m., 20 from 7:30 to 8:30 p.m., 24 from 8:30 to 9:30 p.m., and six from 9:30 to 10:00 p.m.

The site is not in a residential zone and noise studies have been performed to determine the acceptable commercial noise levels. The gas compressors are being located in a noise reduction enclosure. All other exterior equipment will be in compliance with commercial noise criteria. No special noise management is needed beyond that in the design.

Comment NPC109: (Page 2-10) Regarding the pullout and pullback analysis, what growth factor was used in the analysis? What is the worse case and best case scenarios for traffic?

How much deadhead mileage is occurring on a daily basis and the cost of it in comparison to other alternative site locations for all routes?

Response: A conservative growth rate of 1.5 percent per year was added to all existing truck and vehicle volumes to accommodate growth and seasonality. Project-generated trips from all approved projects in the area were also added. See also the response to Comment NPC104.

Comment NPC110: (Page 2-11) Regarding the return of the buses servicing the South Boston Waterfront/Logan; the report mentions the route would be

reversed for Deadhead trips. What is the exact reverse route to access Southampton Street and Moore Street? It is not defined nor studied for traffic impacts. If the return trip is via the expressway south to the South Bay Plaza, the set of lights Expressway/South Bay Plaza nor the stop sign within South Bay Plaza are incorporated into the traffic analysis. Also, I don't believe the traffic analysis incorporated for Southampton Street/South Bay Plaza traffic light was adequately studies or analyzed for pull-out and pull-back traffic. Please provide this analysis and data.

Response: The NPC indicates that the return trip for the buses on the South Boston route will likely use the portion of the South Bay Center ring road from southbound frontage road to Southampton Street. It is assumed that the number of buses that would use the ring road would be less than 10 for the busiest one-hour period, which is approximately one bus every six minutes. It is assumed that the traffic operations at the intersection of Frontage Road at South Bay Center or any intersections within the plaza will not be significantly degraded.

Comment NPC111: (Page 2-17) Regarding the return of the buses servicing the Downtown Boston [area,] it mentions a return trip routing of Temple to Tremont to Stuart to Kneeland to I-93 South ramp to Southampton Street to the maintenance facility. The I-93 South ramp doesn't connect to Southampton Street unless it goes through South Bay Plaza. This route wasn't analyzed or studied for traffic and disruption. There is a light on the I-93 south ramp, a stop sign within South Bay Plaza and another light on the corner [of] South Bay Plaza and Southampton Street. Neither was in the analysis.

Response: The NPC indicates that the return trip for the buses on the South Boston route will likely use the portion of the South Bay Center ring road from southbound frontage road to Southampton Street. It is assumed that the number of buses that would use the ring road would be less than 10 for the busiest one-hour period, which is approximately one bus every six minutes. It is assumed that the traffic operations at the intersection of Frontage Road at South Bay Center or any intersections within the plaza will not be significantly degraded.

Comment NPC112: (Page 3-2) The alternative site of West First Street was deemed unsuitable because the first phase of the Silver Line between Dudley Square and downtown Boston would be located at a "substantial distance from this site." Where is the data and analysis of this in comparison to the current location, all the proposed routes plus the additional deadhead mileage?

Where is the data and comparative analysis of the West First Street [and] Arborway Yard [sites] in comparison to the Southampton Street alternative for all phases of the Silver Line?

Response: Section 3.4 and Table 3.2 of the maintenance facility NPC provided a summary assessment of all alternative facility sites considered, including the West First Street and Arborway Yard sites. Deadhead mileage was one of the criteria used in this assessment of alternative sites.

Comment NPC113: (Page 3-5) Where is the data and comparative analysis of all five sites for the AITC along with the full Silver Line in comparison to the Southampton Street alternative for all phases of the Silver Line? Now that all three projects are combined into one, where is the new analysis of all five and the conclusions?

What were the main factors in disqualifying each and every alternative site to Southampton Street? What were the cost differences to the construction and ongoing operations for each?

Response: See the response to Comment NPC112.

Comment NPC114: (Page 3-6) What are the air quality impacts of deadheading to the West First Street location in comparison to the Southampton Street location?

Where are the inputs from the Newmarket Community to the proposed Southampton Street facility? When, where and how were they contacted before the assessment as a feasible site was determined?

Response: An air quality analysis was not performed on the West First Street site. The facility was moved due to its proximity to residential neighbors and its distance from Washington Street. See also the response to Comment NPC82.

Comment NPC115: (Page 3-7) Why is the "Compatibility" with adjacent land uses for West First Street marked as "low performance" when listed as compatible earlier in the document:

What were the mitigating factors in categorizing each alternative site low or high in Table 3.2? Please list out the differences for each site and each difference.

This section state the MBTA only needs to "obtain the necessary rights to Moore Street" from Waldo Bros. Company. This is not true. The MBTA will need to acquire Waldo Bros. property or mitigate the impact of their use of Moore Street.

Where are the Assessment of Alternatives access routes into the Southampton Street proposed facility? (South Bay Avenue and Frontage Road and any other road except Moore Street?)

Why is the Southampton Street location considered when the Newmarket community isn't serviced by the Silver Line?

Why is an easement necessary from AK Media? Where is this access necessary?

Response:

The West First Street is considered "low performance" for compatibility with adjacent land uses since there are residences very close to the facility; in contrast, the Southampton Street is in an industrial area.

Table 3.2 presents a comparative analysis that includes subjective evaluations. The MBTA believes that these criteria are the ones that best lay out the needs and parameters of the facility.

The MBTA is not required to acquire the entire Waldo Bros. Company property. The MBTA needs to acquire the right, via a utility easement, to install subsurface utilities in Waldo Bros. Company portion of Moore Street (the west half of the south end). These subsurface utilities will be installed during Waldo Bros. Company non-working hours so there will be no impact.

The NBA was identified by the City of Boston and the BTD as the group to represent the public in the design review process. The NBA is a group of business local to the project including Waldo Brothers, Slade Gorton & Co., and the MBTA Police. Ongoing coordination meetings are held with representatives of the NBA, BTD, the Mayor's office, the BRA, and the MBTA to discuss the maintenance facility design and construction, including traffic-related issues and mitigation.

The alternative access routes to the maintenance facility were presented in conjunction with the public design review process identified in the response to Comment NPC1. Representatives of the NBA, City of Boston, BTD, BRA, and the MBTA attended the presentation at a July 17, 2001 meeting.

While Southampton Street is not along the Silver Line route, the facility is well located to serve both ends of the Silver Line.

The easement was granted by the AK Media Group to the MBTA for access by vehicles to the maintenance facility at the north end of Moore Street at the intersection of South Bay Avenue.

Comment NPC116: (Page 4-1) This facility doesn't have minimal transportation system impacts. It has major impacts to the community.

What is the impact to the Newmarket area throughout the pullouts and pullbacks? Newmarket's peak hours are different than commuter peak hours.

Response: Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, additional analysis was conducted to address truck activity in the Newmarket area. Most bus activity occurs outside of the peak traffic periods. During the peak periods, very few buses will return to or leave the facility. Most buses return or depart before or after peak traffic periods.

At times other than peak traffic periods, the number of vehicles will be less and traffic will operate more efficiently.

Comment NPC117: (Page 4-2) What traffic pattern was studied for the South Bay Center and Southampton Street intersection? Was it considered for pull backs taking a left on Southampton Street from the South Bay Center?

Where is the intersection study for:

Southampton and Dorchester Avenue
I-93 South exit ramp and South Bay Plaza
South Bay Plaza impact at stop sign
South Bay Plaza intersection and Southampton Street for Pullback traffic

Response: The intersection at Southampton Street at South Bay Center was analyzed for buses during the roadway's peak hour. At this time, no buses will be returning and will not impact the intersection. When buses do return, traffic at this location will be less. It is assumed that the number of buses that would use the intersection would be less than 10 for the busiest one-hour period, which is approximately one bus every six minutes. No significant impact is expected at this location due to bus activity.

Comment NPC118: (Page 4-5) Where is the seasonality component used for the traffic study of Newmarket? Why was the worst time of year to gain a complete picture of this area and the traffic pattern done?

Where is the data that supports the type of historical traffic of queue trucks for loading docks on Southampton Street and Moore Street studied?

Response: A conservative growth rate of 1.5 percent per year was added to all existing truck and vehicle volumes to accommodate growth and seasonality. Project-generated trips from all approved projects in the area were also added.

Subsequent to the NPC filing, as part of ongoing coordination with the City of Boston and the Newmarket business community, additional analysis was conducted to address truck activity in the Newmarket area. Areas where trucks stand in the Newmarket area were identified by site visits. All buses turning into and out of the facility were modeled to accommodate trucks standing on Southampton Street. The new buses at this facility are more maneuverable than existing ones and require the same width as passenger cars. Traffic is assumed to travel as it does today.

Comment NPC119: (Chart 4-2) shows traffic increase from 2:00-3:00 p.m. when the buses will be deployed again. What is the impact from 2:00-5:00 p.m. as all our trucks are returning to be reloaded during this time? What is the impact for unplanned events like ambulances and fire trucks, which occur quite frequently along Mass Avenue and Southampton?

Response: The data graphed in Figure 4.2 include all trucks using Southampton Street, both returning and departing. The buses' trips were added to existing truck and passenger car volumes that were factored to include growth for future years.

The analysis used to quantify impact to study area intersections determines average vehicle delay. Because of the random nature of "unplanned events," it is too difficult to model the effect they would have. State law requires that vehicles pull to the side of the road to allow emergency vehicles to pass. The MBTA buses adhere to this law.

Comment NPC120: (Table 4.3) This chart depicts four LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton?

Response: The referenced table refers to existing conditions in the area during the p.m. peak hour; as existing conditions, they are unrelated to the maintenance facility. LOS F represents a typical congested peak-hour condition in an urban area, generally meaning that a vehicle will experience delay in passing through an intersection (one or more traffic cycles).

The analysis used to quantify impacts to study area intersections determines average vehicle delay. Because of the random nature of

"unplanned events," it is too difficult to model the effect they would have. State law requires that vehicles pull to the side of the road to allow emergency vehicles to pass. The MBTA buses adhere to this law.

Comment NPC121: (Table 4.2) Where is the impact for the stop sign within South Bay Plaza? Where is queuing for South Bay Center taking left onto Southampton St.?

Response: The stop-controlled intersection within South Bay Plaza was not specifically analyzed. It is assumed that the number of buses that would use the ring road (and the stop-controlled intersection) would be less than 10 for the busiest one-hour period, which is approximately one bus every six minutes. It is assumed that the traffic operations at the intersection of Frontage Road at South Bay Center or any intersections within the plaza will not be significantly degraded.

Subsequent to the NPC filing, a supplemental traffic analysis report was performed. It was presented to the public design review process identified in the response to Comment NPC1 at a July 17, 2001 meeting attended by representatives of the NBA, City of Boston, BTD, BRA, and the MBTA.

The supplemental traffic analysis reports the northbound queue on All State Road Extension to be 12 vehicles for the right turn and five for the left turn during the a.m. peak hour. For the p.m. peak hour, the queue for the left turn is seven and nine for the right turn. These queues are for the 2005 build year with the maintenance facility operational. Queue information for existing and no-build can be found in the NPC appendix. The supplemental traffic analysis reports the 95 percent queue, which basically says that 95 percent of the time the queue is below this amount. Conversely, of course, for 5 percent of the time, the queue is above that amount.

Comment NPC122: (Table 4.4) This chart depicts two LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton?

Response: The referenced table refers to 2005 no-build conditions in the area during the a.m. peak hour; as future year no build conditions, they are unrelated to the maintenance facility. LOS F represents a typical congested peak-hour condition in an urban area, generally meaning that a vehicle will experience delay in passing through an intersection (one or more traffic cycles).

The analysis used to quantify impact to study area intersections determines average vehicle delay. Because of the random nature of "unplanned events," it is too difficult to model the effect they would have. State law requires that vehicles pull to the side of the road to allow emergency vehicles to pass. The MBTA buses adhere to this law.

Comment NPC123: (Table 4.5) This chart depicts four LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton?

Response: The referenced table refers to 2005 no-build conditions in the area during the p.m. peak hour; as future year no build conditions, they are unrelated to the maintenance facility. LOS F represents a typical congested peak-hour condition in an urban area, generally meaning that a vehicle will experience delay in passing through an intersection (one or more traffic cycles).

The analysis used to quantify impact to study area intersections determines average vehicle delay. Because of the random nature of "unplanned events," it is too difficult to model the effect they would have. State law requires that vehicles pull to the side of the road to allow emergency vehicles to pass. The MBTA buses adhere to this.

Comment NPC124: (Table 4.9) This chart depicts two LOS "F" ratings. Why is this considered acceptable? What is the impact for unplanned events like ambulances and fire trucks, which happen quite frequently along Mass Avenue and Southampton?

Response: The intersections classified as operating at LOS F in this 2005 build condition (i.e., the maintenance facility is built and in operation) do not experience any worsening in delay over 2005 no build conditions (compare delay projections for the two intersections in Tables 4.4 and 4.9). See also the response to Comment NPC121. This is due largely to the fact that vehicles will have left the maintenance facility site to enter into revenue service prior to the beginning of the a.m. peak-hour period.

The analysis used to quantify impact to study area intersections determines average vehicle delay. Because of the random nature of "unplanned events," it is too difficult to model the effect they would have. State law requires that vehicles pull to the side of the road to allow emergency vehicles to pass. The MBTA buses adhere to this.

Comment NPC125: (Page 4-10) What will be the impact to Melnea Cass traffic of the Washington Street dedicated Silver Line lane? Will it be worse

when this is in service than it is today along with the bus traffic on Southampton?

The traffic at 4:45-5:45 [p.m.] is significant already. Deployment of buses is from 2:00-4:00 p.m. Will the 4:00 p.m. deployment cause any more impact to the 4:45 commute?

The study discusses commuter peak hours, Newmarket is all trucks with fewer cars on the off-peak commuter hours. What is the impact to the historical business of truck traffic and loading operations?

All data provided by this report for pullouts and pullbacks is an estimate. What happens to the analysis if the distribution times are extended by 30-40 minutes at Newmarket peak season May-October?

Response: The traffic impacts along Melnea Cass were fully analyzed in the Washington Street NPC dated May 1999.

The buses are deployed incrementally from 2:00 to 4:00 p.m. By 4:00 p.m., most buses have departed, and very few if any buses will exit the facility at that time. By 4:45 p.m., buses will be on their routes and will not impact Southampton Street.

During off-peak traffic periods, the bus activity is not expected to significantly impact truck activity.

The impact study analyzed traffic during the peak hour for the study area intersections. Periods outside of the peak period are expected to be equal or less than the peak. Furthermore, the bus deployment is dictated by commuter demand and will not fluctuate more than estimated by MBTA Bus Operations.

Comment NPC126: (Page 4-11) Cross Town planning development wasn't included in the study. What will the impact be with this project along with other development sites not included (Biosquare and Med Services?)

Response: At the time of the study, vehicle trips from Crosstown Project had not been determined. The impact study included all projects in the area that were approved. A general background traffic growth rate was applied for five consecutive years to accommodate additional growth in the area.

Comment NPC127: (Page 4-16) Nothing is mentioned in the report to include Newmarket needs to conduct business in off-peak commuter traffic. What will be the impact during Newmarket peak season plus

colleges in session to all hours of the day to conduct loading and unloading on Southampton Street? What are the delays when all this occurs in front of the proposed site versus and at each intersection?

Response: The impact study analyzed traffic during the peak hour for the study area intersections. This reflects the highest volumes. During off-peak periods, volumes will be lower and the effect of congestion on truck activity will be less.

Areas where trucks stand in the Newmarket area were identified by site visits. All buses turning into and out of the facility were modeled to accommodate trucks standing on Southampton Street.

The MBTA will not queue buses off-site, so it will only need access to the site driveways. A conservative growth rate of 1.5 percent per year was added to all existing truck and vehicle volumes to accommodate growth and seasonality. Project-generated trips from all approved projects in the area were also added. At the time traffic data were collected, most Boston colleges were in session. Southampton Street is not a widely used route for Boston-area college commuters.

Comment NPC128: (Page 4-17) The wide curb cuts will hamper truck staging on Southampton Street? Where is the impact of this to the local businesses?

The Southampton Street/Newmarket intersection is significantly impacted at peak hours. What will be done to mitigate this delay?

Response: Areas where trucks stand in the Newmarket area were identified by site visits. All buses turning into and out of the facility were modeled to accommodate trucks standing on Southampton Street.

Since the facility serves peak-hour demand, buses are on their routes during peak hours.

The peak-hour impact of the facility on the intersection at Newmarket Street is minimal, because very few vehicles will arrive, or leave the site at these times.

Comment NPC129: (Page 5-3) The development of the maintenance facility will have MAJOR impact on Waldo Bros. Company. Ninety percent of Waldo Bros. loading and unloading of trucks is done on our Moore Street loading docks. If the mitigation process for the TAKING of Moore Street isn't sufficient to completely rearrange Waldo Bros. Company buildings and property, Waldo Bros. Company will be out of business. Additionally, Waldo Bros. Company may not survive the

construction impact of this project based upon the information we currently have from the MBTA.

Waldo Bros. has every right to park, load and unload on Moore Street as it has been doing for actively for 22 years but overall 132 years.

The construction impacts to Waldo Bros. Company haven't been considered nor agreed to as yet.

Response: The MBTA has worked toward mitigating Waldo Bros. Company concerns through the design review process in meetings with NBA. The maintenance facility Contractors are required to minimize the impacts to the Waldo Bros. Company operations. All construction work executed in Waldo Bros. Company end of Moore Street adjacent to their loading facilities will be done during their non-working hours. The MBTA continues to work with Waldo Bros. Company to develop mutually acceptable use of Moore Street.

Comment NPC130: (Page 5-4) What are the emissions results compared to utilizing the alternative locations instead of Southampton Street?

Response: The emission results would be the same at each location, since any location would use the same vehicles, same emission source equipment, and same number of pullouts and pullbacks.

Comment NPC131: (Page 5-5) Newmarket area currently experiences brownouts. What will this facility do this situation? What will be done to not add to the problem?

Response: The electrical power for the final configuration of the maintenance facility is fed from the MBTA power grid. The MBTA owns and operates turbines to supply additional electrical power during peak periods. Electrical system brownouts in the Newmarket area are controlled by NStar and not the MBTA.

Comment NPC132: Very poor Business Activity section. Needs more study and depth to all the Newmarket business but especially Waldo Bros. Company, Slade Gorton and Boston Lamb and Veal.

Response: The MBTA feels that the business outreach program on the Southampton Street maintenance facility has been extensive, particularly since the time of the filing of the NPC.

05-15-01 P02:51 IN

BG

84 Prince Street
Jamaica Plain
MA 02130

Mary Beth Mello
Deputy Regional Administrator
Federal Transit Administrator
55 Broadway
Cambridge MA 02171

RECEIVED
MAY 15 2001
MEPA

Secretary Robert Durand
Executive Office of Environmental Affaris
251 Causeway Street
Suite 900
Boston, MA 02114

Dear Madam/Sir,

These are comments related to EOEA #11707 and EOEA #6826.

Comments on the Southhampton Street Maintenance Facility.

The configuration of the maintenace facility needs to be spelled out in more detail. The vehicle for the South Boston Piers Transitway has been chosen as a Low Floor dual mode diesel electric bus to be operated with low sulfur diesel fuel. In addition the site will be a fueling, storage and maintenance facility for CNG buses. More detail needs to be specified in how these buses will coexist. **NPC133**

The dual mode diesel electric bus for the South Boston Piers transitway will be operating in a salt air environment (Boston Harbor) and presumeably will need to be washed thoroughly every day to prevent an excessive rate of corrosion. I did not see anything in the April, 2001 submission by the MBTA addressing the special problems of maintaining vehicles in a seaside environment. **NPC134**

Comments on the Silver Line Annual Update

The ridership estimates for the South Boston Piers Transitway appear to be on the high side, at least in the near term, given the current stage of development in the waterfront area. Since the MBTA Route 7 bus will continue to run it doesn't look like there is any need for the South Boston Piers Transitway route to the Boston Municipal Industrial Park (BMIP).

I would like to see a detailed configuration of the Washington Street Replacement Service (Silver Line) bus route – especially the configuration at Dudley Bus Terminal to Melnea Cass and
the Temple Place end. Will there be a place to layover? Will there be any changes in allowable parking? How will headways be maintained when the route runs in mixed traffic? What is the justification for calling the Washington Street Replacement Service Bus Rapid Transit?

Sincerely yours,

Karen Wepsic

Karen Wepsic

Karen Wepsic

Comment NPC133: The configuration of the maintenance facility needs to be spelled out in more detail. ... More detail needs to be specified in how these [dual mode and CNG] buses will coexist.

Response: Section 2.2 describes in detail the proposed configuration and operation of the maintenance facility.

Comment NPC134: The dual mode diesel electric bus for the South Boston Piers transitway will be operating in a salt air environment (Boston Harbor) and presumably will need to be washed thoroughly every day to prevent an excessive rate of corrosion. I did not see anything in the April, 2001 submission by the MBTA addressing the special problems of maintaining vehicles in a seaside environment.

Response: During the initial development of the initial procurement, the MBTA was careful to specify that the vehicle must be able to withstand typical New England climatic conditions. The MBTA is confident that this vehicle is capable of resisting corrosion due to salt.

Annual Update Pursuant to Massachusetts General Laws, Chapter 30, Section 61, Impact on the Natural Environment

Letters and Response to Comments

ABC

RECEIVED
MAY 22 2001
By

May 21, 2001

Mr. Andrew Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Dear Mr. Brennan,

I am writing in response to the MBTA's revised *Annual Update on the Silver Line* that was recently distributed to the Artery Business Committee. We want to thank the MBTA for sharing this information with us, and appreciate the opportunity to comment.

As you know, the ABC and its members in the South Boston Waterfront have a great interest in the construction and completion of the MBTA's Silver Line. The business communities' goal is to ensure that the service meets and exceeds the demand that is forecasted in the growing Seaport area. The ABC would like to offer the following comments on the Annual Update:

Section 1.4- Future Public Process

We are pleased to see that the MBTA has laid out a plan for future public process as the Silver line construction moves forward, and fully support the idea of a stakeholders group to assist with the operating plans and development of Phase II. In order to coordinate the business community's efforts in the South Boston Waterfront the Artery Business Committee has formed a South Boston Waterfront Transportation Working Group. The group is made up of area businesses, developers, and public sector representatives and is staffed and supported by the ABC. Since December of 2000 they have been meeting on a regular basis to look at the transportation challenges facing the area, and to develop a plan to realize the vision of the South Boston Waterfront as a vibrant part of the City. A key component of the group's work plan is the oversight and support of the on time completion of the Silver Line and the full funding of Phase II. As such, the Artery Business Committee would like to have a member of the ABC staff, representing the South Boston business community, serve on the MBTA Silver line stakeholders group. AU1

Section 2.2 - Ridership Assumptions

Under the section subtitled Transportation Network, the report states that prior supplemental shuttle buses serving the piers area from North Station and Back Bay were not included in the most recent ridership analysis and that these services were "no longer needed to provide adequate levels of transit service to the Piers area." While we think the Silver Line will eliminate the need for connections from South Station and the red line, there is still a question of servicing the needs of commuters making connections at North Station and the green and orange line. In addition, the question of how conventioneers housed in Back Bay hotels will reach the new convention center has yet to be addressed. The ABC in conjunction with the Seaport TMA and its South Boston Working group has recently begun a Surface Transportation Study to look at integrating the public and private services operating in the area. Until Silver Line service begins in 2003, connections to public transportation in the South Boston waterfront AU2

ABC

remain a challenge. Presently, more than a dozen private shuttles operate similar routes independent of one another. This study will examine opportunities to coordinate service and to optimize surface public transportation in the area. The MBTA has agreed to serve on the steering committee for this study and ideally will work with the group to determine which of the proposed routes may be operated by the MBTA until the full build of the Silver line is complete in 2010.

Section 3.0- Vehicle Design

The Artery Business Committee has previously submitted comments on the full Peer Review Panel Final report. The ABC commends the Review Panel on its thorough examination of alternatives that has led to the confirmation of the MBTA's choice of the Neoplan vehicle as the best solution given the physical constraints, need for capacity, and lack of technology in the marketplace at this time. The ABC recommends that the MBTA continue with the plans to procure the Neoplan buses and implement the recommendations of the panel regarding emissions levels. AU3

Thank you for the opportunity to comment on the Annual Update. We welcome the opportunity to work with the MBTA in ensuring that the Silver Line attains its full service potential.

Sincerely,

Richard Dimino
President

cc: John Drew, World Trade Center

Artery Business Committee

Comment AU1: We are pleased to see that the MBTA has laid out a plan for future public process as the Silver Line construction moves forward, and fully support the idea of a stakeholders group to assist with the operating plans and development of Phase II. ... [T]he Artery Business Committee would like to have a member of the ABC staff, representing the South Boston business community, service on the MBTA Silver Line stakeholders group.

Response: The MBTA has begun the public stakeholders process by convening the South Boston Waterfront Transit Advisory Committee as described in Section 1.4. This group has so far focused on developing the transit service plan for the South Boston Waterfront area. As time progresses, the scope of the group will expand to include such elements as design and implementation of the future phase of the Silver Line, the future use of vehicles on the full build, and other relevant issues.

Comment AU2: Under the section subtitled Transportation Network, the report states that prior supplemental shuttle buses serving the piers area from North Station and Back Bay were not included in the most recent ridership analysis and that these services were "no longer needed to provide adequate levels of transit service to the Piers area." While we think the Silver Line will eliminate the need for connections from South Station and the red line, there is still a question of servicing the needs of commuters making connections at North Station and the green and orange line. In addition, the question of how conventioneers housed in Back Bay hotels will reach the new convention center has yet to be addressed.

Response: The April 2001 Annual Update indicated that in 2005, 54 percent of the a.m. peak-hour trips destined for the Waterfront area would be made on the transit, including the Silver Line Phase II. This transit mode share is comparable to that achieved in downtown Boston (67 percent); supplementing this level of transit service with shuttle buses would not be productive, given the cost of those buses operating on already congested roadways. In the full build Silver Line, the a.m. peak-hour transit mode share to the Waterfront area increases to 62 percent, and direct connections to the Orange and Green Lines would be made at New England Medical Center, Chinatown, and Boylston Stations. In terms of conventioneers housed in Back Bay, the FEIR for the Boston Convention and

Exhibition Center (BCEC) assumed that these trips would be made primarily on privately operated shuttles coordinated between the hotels and BCEC.

Comment AU3: The ABC recommends that the MBTA continue with the plans to procure the Neoplan buses and implement the recommendations of the panel regarding the emissions levels.

Response: The MBTA will develop and implement an emissions assurance program for the Neoplan dual mode vehicle. The proposed framework for this program is summarized in Section 3.6 and detailed in Appendix B. The framework reflects a pragmatic and feasible approach to the Peer Review Panel's recommendations related to emissions control.

CITY OF BOSTON
THE ENVIRONMENT DEPARTMENT

Boston City Hall, Room 805 • Boston, MA 02201 • 617/635-3850 • FAX: 617/635-3435

May 15, 2001

Andrew Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza
Boston, MA 02116

Re: Revised Silver Line Annual Update

Dear Mr. Brennan:

The City of Boston Environment Department has reviewed the Revised Silver Line Annual Update (AU) and hereby submits the following comments.

The AU provides a comprehensive summary of the MBTA's efforts regarding Silver Line service over the past year including information on ridership projections, vehicle technology and air quality.

Vehicles that will be used on Washington Street for the first year of replacement service will be 40-foot, CNG, low floor buses. These buses should be in service by early in the fourth quarter of 2001. Receipt of the 60-foot, articulated CNG vehicles for Washington Street service requires an extended lead time and they will not be available to the MBTA until late 2003 or early 2004. **AU4**

This Environment Department understands that use of the 60-foot articulated buses was contemplated when headways were established for Washington Street and we are concerned that the 40-foot buses operating with the same headways will not provide sufficient service. This department requests that the MBTA provide information on capacity changes that will result from use of the 40-foot buses and on adjustments that will be made to counter any capacity deficits.

Thank you for the opportunity to offer comment. We look forward to the continued progress of this important project.

Sincerely,

Antonia M. Pollak
Director

cc: Andrea d'Amato, Chief of Environmental Services
Vineet Gupta, Director of Policy and Planning, Boston Transportation Department

SilverLineAU.doc.AMP:MTZ.mtz

City of Boston
The Environment Department

Comment AU4: The Environment Department understands that use of the 60-foot articulated buses was contemplated when headways were established for Washington Street and we are concerned that the 40-foot buses operating with the same headways will not provide sufficient service. This department requests that the MBTA provide information on capacity changes that will result from the use of the 40-foot buses and on adjustments that will be made to counter any capacity deficits.

Response: The MBTA is planning on using 40-foot CNG vehicles along Washington Street for only a limited period of time. The Silver Line/Washington Street service is expected to officially open in July 2002 using the 40-foot vehicles. The 60-foot vehicles are being delivered and will be in service along Washington Street by the end of 2002.

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

RECEIVED
MAY 17 2001
By

JANE SWIFT
Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

May 15, 2001

Jay Wickersham, Director
MEPA Unit
Executive Office of Environmental Affairs
251 Causeway Street, 9th Floor
Boston, MA 02114-2150

Attention: William Gage

Re: MBTA, Silver Line Project
- EOEA #6826-South Boston Piers Transitway
- EOEA #11707-Washington Street/Silver Line Transit Service and Roadway Improvements
Environmental Assessment and Notice of Project Change

Dear Mr. Wickersham:

The Department of Environmental Protection (DEP) has received and reviewed the following joint Environmental Assessment/Notice of Project Change filing by the MBTA for its Silver Line Project:

(1) EOEA #6826-South Boston Piers Transitway; and

(2) EOEA #11707-Washington Street/Silver Line Transit Service and Roadway Improvements

The documents include a Revised Annual Update for the Silver Line Project filed pursuant to Chapter 30, Section 61 of the MEPA regulations, and a siting assessment for the Silver Line Maintenance Facility. This correspondence includes DEP's consolidated comments on this joint MEPA filing.

Silver Line Maintenance Facility

Introductory Comment

The MEPA filing states that it has determined that a consolidated vehicle fleet maintenance facility to handle three separate, but related, projects; (1) South Boston Piers Transitway, (2) Washington Street Replacement Service, and (3) Massport AITC will improve overall services and that the facility be located at a mainly MBTA-owned site on Southampton Street, Boston.

DEP Comments

(1) On-Site Soil and Groundwater Contamination

(a) The MBTA document states that the two parcels which make up the Southampton Street proposed location are listed as Disposal Sites under c. 21E and the Massachusetts Contingency Plan (MCP) @310 CMR 40.0000 and that subsurface sampling indicates the existence of "separate phase hydrocarbons" and areas of significant soil contamination, mainly; lead, total petroleum hydrocarbons (TPH) and polychlorinated biphenyls (PCBs), including at least one area with lead concentrations in excess of the MCP Upper Concentration Limit (UCL). The report estimates that up to 20% of the soil expected to be removed from the parcels to allow for construction of the facility could fail the Toxicity Characteristic Leaching Procedure (TCLP) test, potentially requiring it to be managed as a characteristic hazardous waste.

During the development of the South Boston Piers Transitway Project, the MBTA and DEP executed a Special Procedures Determination under the MCP for management of Oil and Hazardous Materials (OHM) encountered during the project. That agreement ensured close coordination and cooperation among DEP, the MBTA and its consultants/contractors. DEP will discuss with the MBTA the potential for a similar type of cooperative agreement for the work to be performed at the Southampton Street facility

(b) One specific action that the MBTA should consider is to treat the TCLP soils to remove the "hazards characteristic" prior to its removal from the Site. Such actions have been used successfully on the Central Artery/Tunnel Project, and in February 13, 2001 correspondence to the MBTA, DEP approved its use under contract E02CN15 of the South Boston Piers Transitway Project.

(c) DEP wants to stress the importance of the MBTA properly manage the removal and disposal of lead-based paint and asbestos from the Mercedes Building located on the MBTA Site, which the reports states will need to be demolished as part of this project. The management of these types of hazardous materials has been a problem at other MBTA projects.

Air Quality

(2) As MEPA is aware, concerns exist relative to adverse impacts of emissions from both stationary and mobile diesel-powered facilities and equipment and that there are ongoing efforts DEP and various state agencies to significantly reduce such emissions.

Many of these efforts are included in DEP's September 1, 2000 Determination relative to the Massachusetts Highway Department's Amendments to its Preconstruction

Certification for the Central Artery/Tunnel Project pursuant to 310 CMR 7.38(2) and delays and/or substitutions of projects under the "Transit Regulations" at 310 CMR 7.36, which include a series of actions required by the MBTA.

The facilities proposed by the MBTA for incorporation into the Southampton Street facility will provide the requisite infrastructure (e.g. alternative fuel facilities) to allow the MBTA to meet the commitments included in DEP's September 1, 2000 Determination.

(3) The report (page 5-14) states,

"The specifications for both the site preparation contract and the facility construction contract will include a requirement that all off-road diesel construction equipment must have emission control devices installed, such as oxidation catalysts or particulate filters on the exhaust system side of the diesel combustion engine equipment. This equipment is identical to equipment required as part of the CA/T construction retrofit program. This equipment, as articulated in the Transit Commitment agreement between DEP and EOTC, will be part of all new construction projects performed by the MBTA as well as the Massachusetts Highway Department."

DEP would like to indicate its appreciation to the MBTA and the Executive Office of Transportation and Construction (EOTC) for working cooperatively with the Executive Office of Environmental Affairs (EOEA) and DEP to implement actions to reduce contaminants from diesel emissions from its public transportation operations and construction projects, the above retrofit activity being just one element of a comprehensive emissions control program.

DEP strongly believes that such actions will significantly benefit the residents of the Commonwealth, particularly those living and working near MBTA facilities and along its transportation corridors.

Water and Wastewater Systems

(4) DEP supports MBTA's proposals to incorporate reuse and recycle technologies into the water and wastewater systems proposed for the facility, an example being the "bus wash wastewater system" which includes a degreasing power-wash designed to recover 100 percent of the wash water (page 5-9).

Silverline Annual Update

General Comments

The Annual Update for the South Boston Transitway and Washington Street/Silver Line Transit Service includes the final report of a Peer Review Panel convened to review and make recommendations on the Neoplan buses for the South Boston Transitway. Based on this report, Section 3.0 of the Annual Update offers an emissions control plan for the buses. The MBTA is committing to a program to minimize bus emissions including the use of ultra low sulfur diesel (ULSD) fuel, the installation of Johnson Matthey CRT™ diesel particulate filters (DPF) when

the buses are delivered for service, and the installation of Johnson Matthey SCRT™ devices to reduce nitrogen oxides (NOx).

The MBTA's plan for the Transitway Neoplan buses is a new approach designed to ensure that transportation demand is met for the rapidly developing South Boston waterfront area while minimizing air quality impacts. As such, DEP supports an ongoing emissions testing and monitoring program to track the performance of the buses. DEP also points out that bus and emissions technology will continue to advance both in the short- and long-term. Future annual updates should track and report on these advancements, particularly as the MBTA plans for the future connection between Washington Street and the Transitway. **AU5**

Specific Comments

The MBTA indicates it will enter into a contract with Neoplan to provide vehicle and emissions systems support. Given that Johnson Matthey (JM) will be needed to provide key support on the emissions control devices and Neoplan is not expert in these devices, JM should be tied contractually to provide support as well. The MBTA also plans to equip the buses with monitoring equipment. The MBTA should specify in future updates the name, model, and manufactures of the monitoring device. **AU6**

The MBTA commits to performing emission tests for primary criteria pollutants (CO, PM, HC, and NOx) on buses prior to operation. Because the MBTA's plan is a new approach, DEP believes the testing program should be designed with input from an oversight committee or an emission testing protocol should be prepared for public and DEP review. This protocol should include detailed information on the testing protocol and which contractor(s) the MBTA plans to use to perform the testing. **AU7**

The buses will also be tested when they are operational (in-use testing). The MBTA should conduct the J1667 snap idle test (required by the periodic MA diesel smoke program) in addition to their proposed visual check for the filters. The MBTA should also specify how NOx emissions will be measured. Will a five-gas analyzer be used? The NESCAUM states have an over-the-road testing device called "ROVER." The MBTA could use this at no cost, but will need to hire a contractor to perform the test. In any case, MBTA states "the technological issues associated with implementing these programs will be reported in subsequent annual updates once all of the design elements have been finalized." DEP agrees that the annual updates should report on the implementation of the testing program, but these issues should also be discussed with DEP and EOEA before they have been finalized. **AU8**

A key component of both the emission testing prior to operation and in-use testing of the buses is an evaluation of the results as compared against the expected emissions performance of the MBTA's plan. In the event that the MBTA's plan for the Neoplan buses is not achieving the predicted emission levels, the MBTA should be required to take corrective actions. **AU9**

The MBTA proposes to test the performance of the SCRT devices prior to installing the technology on all the Neoplan buses. It is likely, given the rapid development of diesel retrofit technology and according to Johnson Matthey, its SCRT™ technology will be available for all 32 buses in 2003, in which case the MBTA should retrofit the 30 buses not being delivered with SCRTs in 2003. In addition, waiting for EPA to verify the SCRT technology and for manufacturers to offer it as a commercially available product by engine manufacturers is **AU10**

inadequate. In the peer review process and in the final report, installation was not dependent upon technology verification. If MBTA waits until the end of 2005 to retrofit with SCRTs, they will only be slightly ahead of the emissions standards for a few months, after which time the Neoplan buses will be dirtier than those being delivered in 2007. The new standards that will be in effect in 2007 will be much lower than the MBTA buses (0.2 grams for all heavy-duty vs. ~ 1 gram of NOx for the Neoplan buses). Alternatively, the MBTA should implement a community-based program to offset excess NOX emissions from the Neoplan buses until all of the vehicles are retrofit with SCRT technology. This is particularly important if all the Neoplan buses will not retrofit until 2005.

Feel free to contact me (617-292-5698) if you have any questions regarding this correspondence.

Very truly yours,

Steven G. Lipman, P.E.
Special Projects Coordinator

SGL/wp
Silver line project

Cc: Andrew Brennan, Director of Environmental Affairs, MBTA
Maura Zlody, MEPA Review Coordinator, Boston Environmental Department
Christine Kirby, Jerome Grafe, John Felix, David Shakespeare, Dave Murphy, Iris Davis, Keith Grillo, Laurel MacKay, Phil Weinberg, DEP, Deirdre Buckley, EOEA

Commonwealth of Massachusetts Department of Environmental Protection

Comment AU5: Future annual updates should track and report on ... advancements [in bus and emissions technology], particularly as the MBTA plans for the future connection between Washington Street and the Transitway.

Response: A change in the engine of the Neoplan dual mode vehicles is described in Section 3.0. That section also presents a framework for an Emissions Assurance Program for the vehicle. It is the practice of the MBTA to consistently acquire, analyze, and when appropriate apply information regarding advancements and/or developments in vehicle and emissions control policy, regulations, engineering, systems, and products. In addition, this ongoing effort focuses on the deployment experiences of other public transportation agencies and allied industry sectors involved in large heavy-duty vehicle fleet operations. These efforts will provide the basis, in part, for future decision-making and options related to vehicle technology for the future Silver Line. Such technology options will continue to be presented in future Annual Updates.

Comment AU6: The MBTA indicates it will enter into a contract with Neoplan to provide vehicle and emissions systems support. Given that Johnson Matthey (JM) will be needed to provide key support on the emissions control devices ... JM should be should be tied contractually to provide support as well. The MBTA should specify in future updates the name, model, and manufacturers of the monitoring device.

Response: All manufacturers providing equipment, systems, and consumables related to emissions control associated with the dual mode vehicle are by contract and industry practice joined into a partnership, directly and indirectly, with the MBTA. This partnership is based on warranty provisions (mechanical and emissions) and related service as well as required technical support derived from contractual commitments and driven by market conditions. Further, this partnership includes engine, aftertreatment, and fuel vendors, as well as the vehicle manufacturer. The MBTA's

proposed Emissions Control Program summarized in Section 3.6 incorporates these relationships and their regulatory, contractual, and risk management origins and implications. The model for this support has been developed by the MBTA through its recent series of implementation initiatives associated with the Series 50 Reliabilt Engine Program, fleet-wide deployment of ultra low sulfur diesel fuel, and installation of diesel particulate filters. Experience accumulated through these initiatives will serve as an important basis for future decision-making by the MBTA with respect to dual mode vehicle emissions control-related products and services.

Future Annual Updates will include product profile information related to selected monitoring/testing technologies.

Comment AU7: DEP believes the [emissions] testing program should be designed with input from an oversight committee or an emission testing protocol should be prepared for public and DEP review. This protocol should include detailed information on the testing protocol and which contractor(s) the MBTA plans to use to perform the testing.

Response: Section 3.6 describes a comprehensive and fully integrated Emissions Assurance Program framework that consists of four complementary elements (including emissions testing). These elements cover the three interrelated components of emissions control – engine, aftertreatment, and fuel – to be incorporated in the dual mode vehicle's propulsion system architecture. It is the intent of the MBTA to utilize the services of an independent contractor to, at a minimum, oversee the selected emissions testing protocol as well as analyze and report the key outcomes of the data derived from such tests.

Comment AU8: The MBTA should conduct the J1667 snap idle test (required by the periodic MA diesel smoke program) in addition to their proposed visual check for the filters. The MBTA should also specify how NOx emissions will be measured. Will a five-gas analyzer be used? ... [T]he annual updates should report on the implementation of the testing program, but these issues should also be discussed with DEP and EOEA before they have been finalized.

Response: Currently, the MBTA conducts smoke testing consistent and in compliance with procedures contained in the Massachusetts diesel smoke program. By extension, and as a matter of practice, the dual mode vehicle fleet will be subject to these same procedures. The MBTA bus maintenance garage system is equipped with smoke opacity testing equipment that is used in support of these efforts. This will be the case as well at the new Silver Line Southampton Street facility and its provisioning of equipment. The MBTA Bus

Operations Directorate works closely with the staffs of the Department of Telecommunications and Energy and the Registry of Motor Vehicles for all inspection and reporting requirements set forth by the Commonwealth of Massachusetts. This collaboration will extend to the acceptance and operation of the dual mode vehicles. A recent demonstration of this successful partnering took place during the delivery and conduct of acceptance testing/inspection protocols associated with the New Flyer CNG bus procurement.

As summarized in Section 3.6 and detailed in Appendix B, an Emissions Assurance Program is proposed for the Silver Line dual mode vehicles, with an array of potential emissions testing options. It is the intent of the MBTA to measure, analyze, and document a range of vehicle emissions, including NOx, PM, CO, HC, and CO2. Due to technological and related regulatory considerations, a specific testing technology/ protocol has not yet been selected. However, the purpose of the Emissions Assurance Program is to provide a development status of and roadmap for testing technology options. The final development and eventual implementation of the program will be reported in future Annual Updates.

Comment AU9: In the event that the MBTA's plan for the Neoplan buses is not achieving the predicted emissions levels, the MBTA should be required to take correction actions.

Response: As described in Section 3.6 and detailed in Appendix B, the MBTA has developed a strategy for an Emissions Assurance Program designed to support consistent and long-term emissions control for the Neoplan dual mode vehicle. The program represents a strategic framework under which the MBTA will operate and maintain the three emissions-related components of the vehicle's propulsion system architecture - engine, aftertreatment, and fuels. As a result of this framework and the methods and procedures it will produce, the MBTA will be engaged in an effective program of systems-based calibration and corrective measures (i.e., preemptive, conditions-driven, and predictive). This will ensure the emissions performance of those technologies set forth in the Emissions Assurance Program. The program is designed to provide a series of safeguards and, ultimately, an operating fail-safe mechanism to ensure the lowest possible level of emissions allowable by the selected technologies for the dual mode vehicle.

Comment AU10: It is likely, given the rapid development of diesel retrofit technology and according to Johnson Matthey, its SCRT™ technology will be available for all 32 buses in 2003, in which case the MBTA should

retrofit the 30 buses not being delivered with SCRTs in 2003. In addition, waiting for EPA to verify the SCRT technology and for manufacturers to offer it as a commercially available product by engine manufacturers is inadequate. ... If MBTA waits until the end of 2005 to retrofit with SCRTs, they will only be slightly ahead of the emissions standards for a few months, after which time the Neoplan buses will be dirtier than those being delivered in 2007. ... Alternatively, the MBTA should implement a community-based program to offset excessive NOx emissions from the Neoplan buses until all of the vehicles are retrofit with SCRT technology.

Response:

To date and for the foreseeable future (12 to 18 months), the SCRT™ system is not commercially available: It is still in the pilot demonstration phase of its commercial development in the U.S. Furthermore, the SCRT™ has not been submitted for EPA verification under its Environmental Technology Verification Program (ETVP). Currently, the EPA is developing product-testing protocols for Selective Catalytic Reduction (SCR) technology for mobile heavy-duty engine retrofit application. EPA verification is crucial to risk management and regulatory compliance issues associated with retrofit applications of diesel emissions control technologies. At this point, the inherent risk associated with both the SCRT™ system and SCR single unit products does not support prudent and sound decision-making for full deployment of such technology in the dual mode vehicle fleet. However, there are encouraging developments in this technology. The MBTA is closely monitoring progress and key outcomes of existing and anticipated SCR pilot projects around the U.S. (see Section 3.4 for a discussion of the application of SCR technology to the dual mode vehicle). This includes the baseline parameters for SCR deployment promulgated by the MBTA, as well as a status of mobile SCR projects in the U.S.

With respect to 2007, two points require clarification. First, all Neoplan dual mode vehicles will be delivered prior to this date and will be compliant with the EPA NOx emission level (2.5g/bhp-hr 2002/2004) for new engine certification, as described in Section 3.0. Furthermore, the profile of the vehicle for PM is not only far below its required 2002/2004 certification level, it will more than meet the new 2007 new engine requirements for PM. Second, the emissions standards milestone, currently planned for 2007, is only application to new engines sold in the U.S.

With respect to community-based offset for NOx, the newly selected dual mode vehicle engine (see Section 3.2) has a NOx profile that is 33 percent lower than the previous engine. In addition, the momentum for the deployment of other applications

of clean fuel technology is such that the MBTA has undertaken several actions that will create offsetting through its own fleet procurement/retirement and retrofit programs. The MBTA is also investigating the feasibility of incorporating diesel emissions control retrofit technologies for its commuter rail locomotive and commuter water ferry fleets. The MBTA has established a precedent setting leadership position in the deployment of clean diesel technology in the metropolitan region. This has begun to improve the market economic conditions associated with this technology – serving as the basis for other public heavy-duty diesel fleet operators to deploy this technology. Also, the EPA and Region I Office has been instrumental in facilitating a series of clean diesel and related emissions reduction initiatives through its Voluntary Diesel Retrofit Program, including the recently announced Boston School Department ULSD and DPF Retrofit Program. It is reasonable to expect that the momentum generated by the MBTA and EPA will lead to the adoption and deployment of other clean diesel and related technologies resulting in accelerated and effective emissions offsetting in the Transitway project and surrounding areas.

Commonwealth of Massachusetts

Division of Marine Fisheries

Southeast Marine Fisheries Station
50A Portside Drive
Pocasset, MA 02559
(508) 563-1779
fax (508) 563-5482

Paul J. Diodati
Director

May 15, 2001

Andrew D. Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Dear Mr. Brennan:

The Division of Marine Fisheries has reviewed the Silver Line Revised Annual Update with regards to potential impacts to marine fisheries resources. Based on the information provided, we have no recommendations regarding the proposed scope of work at this time.

If you have any questions about this review, please contact Vin Malkoski in our Pocasset office at (508) 563-1779, ext. 119.

Sincerely yours,

Paul J Diodati

Paul J. Diodati
Director

Commonwealth of Massachusetts
Division of Marine Fisheries

No comments.

Massachusetts Sierra Club

Greater Boston Group

100 Boylston Street, Boston, MA 02116
(617) 423-5775 /Fax (617) 423-5858

Andrew D. Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Bob Durand, Secretary
Executive Office of Environmental Affairs, Attention: MEPA Office
William Gage, EOEA **No. 6826/11707**
251 Causeway Street, Suite 900
Boston, MA 02114

May 21, 2001

Re: **Revised Annual Update for the Silver Line**

Although the proposed Washington Street bus service has been designated part of the "Silver Line" by the MBTA, the reality is there isn't a "Silver Line" and usage of this term should be discontinued.

There is only the South Boston Piers Transitway Project between the South Boston Piers area and South Station, with a possible extension to Boylston Street Station and/or Medical Center Station. There is no funded or fully designed connection between the Transitway Project and any proposed Washington Street Replacement Service, and until the state actually constructs such a connection between the two projects, the term "Silver Line" will remain a public relations ploy to cover the lack of transit investment in some of the most disenfranchised neighborhoods in the city of Boston.

The reconstruction of Washington Street now underway, between Dudley Square in Roxbury and Avenue De Lafayette in downtown Boston, is ***primarily a road rebuilding*** project and ***does not adequately address the issue of a permanent replacement service for the Orange Line rapid transit service*** relocated from this corridor in 1987. It simply attempts to make permanent a variation of the inadequate replacement bus service in existence since 1987. According to the Central Artery/Tunnel Transit and Traffic Management Commitments, the provision of such a replacement service was supposed to have been completed by 12/31/94.

South Boston Piers Transitway

- Since a significant portion of the South Boston Waterfront, including the Convention Center, will be affected by the South Boston Piers Transitway system operating on the surface, the MBTA's original choice of ETB's (electric trolley buses) would minimize both noise and pollution impacts in the immediate area. ***The negative impacts of overhead catenary construction necessary to support ETB operations in this area have been given far more weight than is prudent given the significant air quality benefits these vehicles will provide.*** Given the significant concerns over existing air quality issues impacting much of downtown Boston and adjacent neighborhoods, the introduction of a major new transit system into this area operated in part by internal combustion engines of any type is both incomprehensible and unnecessary.

AU12

The Club has attached its comments on the South Boston Piers Area Transitway Vehicle Peer Review Panel Final Report and requests they be made part of our comments on this Annual Review.

- Is Phase Two (South Station to Boylston Station) still considered a viable project in light of other more recent funding priorities such as Fall River/New Bedford Commuter Rail and the Urban Ring. The Annual Review informs us that no funding has been secured for Phase II and that much design/engineering work remains to be done on this section of the Piers Transitway Project. **AU13**

Washington Street Replacement Service (Replacement Transit/Improvement Project)

- **1.4 Future Public Process** - The Replacement Transit/Improvement Project corridor extended all the way to Mattapan Square, and not just to Dudley Square in Roxbury. **AU14**

- The MBTA is once again proposing another "interim" service utilizing 40 foot buses instead of the original 60 foot articulated vehicles proposed in earlier submissions. As was true for much of the history of this project, this "interim" service will undoubtedly become the permanent service. We have continually recommended that the Commonwealth, and its authorities and agencies, not misrepresent what actually is being proposed for the Replacement Transit/Improvement Project corridor. **AU15**

- The Club, among many others, is again recommending that these two projects; The South Boston Piers Transitway Project and the Replacement Transit/Improvement Project (Washington Street Replacement Service) be decoupled and that a true Replacement Service for the former Orange Line elevated through Dudley Station in Roxbury be constructed with no further delay. **AU16**

- The Club is also recommending that the MBTA's CT3 bus route be immediately rerouted to serve Dudley Station ***at all times***. This one simple adjustment would immediately result in a one seat ride between Dudley Station in Roxbury, the South Boston Waterfront and Logan Airport. **AU17**

Thank you.

John F. Deacon

Cc: Mary Beth Mello, FTA

Massachusetts Sierra Club

Comment AU12: The negative impacts of overhead catenary construction necessary to support ETB operations in [the South Boston Waterfront] area have been given far more weight than is prudent given the significant air quality benefits these vehicles will provide.

Response: The MBTA is interested in working with the communities to determine if overhead electric catenary should be strung in the South Boston residential areas (or any other areas) so that the dual mode vehicles can be used in zero emissions mode. While the MBTA has stated that these catenary wires are an impact (particularly on historic and cultural resources), it does not believe that it negates the benefits of the use of the vehicle. The MBTA will address these impacts if and when the decision to use the vehicles on wire is made.

Comment AU13: Is Phase Two (South Station to Boylston Station) still considered a viable project in light of other more recent funding priorities such as the Fall River/New Bedford Commuter Rail and the Urban Ring. The Annual Review informs us that no funding has been secured for Phase II and that much design/engineering work remains to be done on this section of the Piers Transitway Project.

Response: Silver Line Phase III remains an important transit priority for the MBTA, as do projects like Fall River/New Bedford. The MBTA is seeking all opportunities to fund these projects within its capital plan. Since the time of the last Annual Update, the MBTA filed a Silver Line Phase III New Starts report/request to initiate preliminary engineering with the Federal Transit Administration (FTA) requesting funding of 60 percent of the project. This request to enter the New Starts pipeline and initiate preliminary engineering was approved by FTA on July 19, 2002. There is $42.71 million in the FY2003–FY2007 Capital Investment Plan. The MBTA programmed that money because it represents a 20 percent match for the original cost estimate. The Transit Commitments require the MBTA to put up at least 20 percent.

Comment AU14: The Replacement Transit/Improvement Project corridor extended all the way to Mattapan Square, and not just to Dudley Square in Roxbury.

Response: The original commitment for Washington Street Service was from Dudley to downtown. The MBTA is interested, however, in working with communities to see what routes should be expanded or extended. The BRT concept gives the MBTA the greatest flexibility to extend or change this service.

Comment AU15: The MBTA is once again proposing another "interim" service utilizing 40-foot buses instead of the original 60-foot articulated vehicles proposed in earlier submissions. As was true for much of the history of [the Washington Street] project, this "interim" service will undoubtedly become the permanent service.

Response: As described above, the MBTA is planning on using 40-foot CNG vehicles along Washington Street for only a limited period of time. The Silver Line/Washington Street service is expected to officially open in July 2002 using the 40-foot vehicles. The 60-foot vehicles are being delivered and will be in service along Washington Street by the end of 2002.

Comment AU16: The Club, among many others, is again recommending that these two projects; The South Boston Piers Transitway Project and the Replacement Transit/Improvement Project (Washington Street Replacement Service) be decoupled and that a true Replacement Service for the former Orange Line elevated through Dudley Square in Roxbury be constructed with no further delay.

Response: The Silver Line/Washington Street project does not need to be "decoupled" from the Transitway project, since the Washington Street service does in fact represent a replacement service as promised by the MBTA.

Comment AU17: The Club is also recommending that the MBTA's CT3 bus route be immediately rerouted to serve Dudley Station *at all times*. This one simple adjustment would immediately result in a one seat ride between Dudley Station in Roxbury, the South Boston Waterfront and Logan Airport.

Response: Based on the MBTA service Delivery Plan, the MBTA decided to no longer route any CT3 buses to the airport, due to the very low ridership and demand over the three years the route was in service.

South Boston Environmental Health Watch
C/o Public Health Initiative
133 Dorchester Street
South Boston, MA 02127

RECEIVED
MAY 23 2001
By

May 21, 2001

Andrew Brennan
Director of Environmental Affairs
Massachusetts Bay Transportation Authority
10 Park Plaza, Room 6720
Boston, MA 02116

Re: Silver Line
Annual Update MGL Chapter 30, Section 61
(EOEA #6826 and EOEA#11707)

Dear Mr. Brennan,

The South Boston Environmental Health Watch(SBEHW) is a group of community activists and staff of the South Boston Public Health Initiative whose mission is to identify and address environmental concerns that affect the public health of the community. SBEHW is particularly concerned with developments that affect air quality as South Boston residents have higher rates of respiratory cancers and illnesses than residents in the rest of the City or State. For this reason Health Watch pays attention to vehicular emission, specifically diesel emissions. Consequently the Health Watch joined with the Conservation Law Foundation in filing the Notice of Project Change which resulted in the Peer Review Panel's evaluation of the Neoplan dual mode bus for the transitway servcies. The Health Watch has now reviewed the MBTA's Annual Report and the Peer Review's Final Report and submits the following comments.

Both the Washington Street Replacement Service and the South Boston Piers Transitway should be light rail AU18

The Health Watch supports both of these projects as light rail because light rail would generate zero emissions and provide a higher capacity transportation system. The preclusion of light rail for consideration of the Peer Review Panel was the factor that limited SBEHW's support of the MBTA's establishment of the Peer Review Panel. The annual report states that conversion to light rail is possible (Section 4-2). In fact, the laying of tracks is all that would be required to build the Washington Street Replacement Service as light rail from inception. The Peer Review Panel also states that the Neoplan vehicle does not preclude later conversion to light rail (section 5.9). The South Boston community would be less impacted by emissions by the Piers Transitway, itself, if it were light rail. In addition a light rail system with connections to Boylston Station would encourage ridership and therefore lessen the impact of commuters and tourists driving

through the neighborhood or using diesel powered shuttle buses to access the Convention Center.

Extension of catenary

If the Neoplan dual mode buses are going to be used on the Piers Transitway, the Health Watch supports extending catenary on the Convention Center and Boston Marine Industrial Park routes. Again, whenever the vehicles are running "on-wire", emission are reduced and air quality in the neighborhood is improved. AU19

Monitoring the dual mode vehicles

The Peer Review Panel concluded that if MBTA's emission estimates for the Neoplan are achieved the bus will have lower emissions than a conventional diesel bus. The Peer Review, however adds, "Given the relatively unproven combination of technologies in the Neoplan buses, the only guarantees of their performance will lie in the terms of the procurement negotiated by the MBTA with Neoplan, and in all parties' willingness to closely monitor performance and to address problems immediately should they arise." If the Neoplan vehicles are to be employed, SBEHW insists that the MBTA implement all the monitoring recommendations described in section 7.2 of the Peer Review Panel's Report. Furthermore, the results of the monitoring should be made available to the community. AU20

Future Public Process

SBEHW would like to see the MBTA establish meaningful community involvement that would advance the real transportation and health needs of the affected communities. AU21

Alphonsus Rocha
Paul Tedeschi
Lucky Dufaivern
Nina Hayes
Mary Cooney
Marie Boulet
Laura Connelly

Cc: Robert Durand, Secretary
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114

South Boston Environmental Health Watch

Comment AU18: Both the Washington Street Replacement Service and the South Boston Piers Transitway should be light rail.

Response: The entire Silver Line service is being designed so that it may accommodate a conversion to light rail in the future, if appropriate. At this point, however, the MBTA believes that the BRT service on both of these segments is appropriate and that waiting until light rail can be built will only delay the implementation of high quality transit to neighborhoods in need of this service.

Comment AU19: If the Neoplan dual mode buses are going to be used on the Piers Transitway, the Health Watch supports extending catenary on the Convention Center and Boston Marine Industrial Park routes. Again, whenever the vehicles are running "on-wire," emission[s] are reduced and air quality in the neighborhood is improved.

Response: As described above, the MBTA is interested in working with the neighborhoods to determine where it may be appropriate to place catenary wire so that the MBTA can run more of the dual mode service in zero emissions mode.

Comment AU20: If the Neoplan vehicles are to be employed, SBEHW insists that the MBTA implement all the monitoring recommendations described in Section 7.2 of the Peer Review Panel's Report. Furthermore, the results of the monitoring should be made available to the community.

Response: The MBTA has developed and presents a multilateral Emissions Assurance Program for the Neoplan dual mode vehicle (see Section 3.6). This program's framework reflects a pragmatic and feasible combination of the Peer Review Panel's recommendations as they relate to emissions control. With respect to community-based air quality monitoring, the MBTA will investigate existing programs and related assets dedicated to this purpose. In addition, the MBTA will seek the establishment of an interagency (federal, state, and municipal) project stakeholder partnership. The purpose of this partnership will be to frame a unified and practical approach to project area monitoring, data acquisition and analysis, and community-accessible (e.g., Internet-based) reporting.

Comment AU21: SBEHW would like to see the MBTA establish meaningful community involvement that would advance the real transportation and health needs of the affected communities.

Response: The MBTA has established a stakeholders group, as described in Section 1.4, to develop an complete community involvement process to address, among other issues, the transportation and environmental needs of the South Boston community.

South Boston Environmental Health Watch
C/O Public Health Initiative
133 Dorchester Street
South Boston, MA 02127

Washington Street Corridor Coalition
1891 Washington Street
Boston, MA 02118

May 24, 2001

Bob Durand, Secretary
Executive Office of Environmental Affairs
Attention: MEPA Office
William Gage EOEA #6826 and EOEA#11707
251 Causeway Street, Suite 900
Boston, MA 02114

Dear Secretary Durand,

The South Boston Environmental Health Watch (SBEHW) and the Washington Street Corridor Coalition (WSCC) are submitting some joint comments on the MBTA's Annual Silver Line Report because neither group believes that the transportation and health needs of community residents are adequately addressed. Both groups believe that the full build Silver Line should be a light rail system to maximize capacity, compete with private auto use, and minimize air quality impacts in the neighborhoods. For this reason, both groups objected to having the MBTA limit the scope of the Peer Review Committee by prohibiting the consideration of Light Rail. **AU22**

In fact, the MBTA has not submitted studies or analysis to prove the infeasibility of light rail for either the Washington Street Replacement service or the Piers Transitway as two separate or one connected system. The MBTA does state in the annual report that light rail is one of the potential vehicle options for the full build Silver Line. We, therefore, request MEPA to require the MBTA to file a new environmental notification form for a light rail system. This is a particularly necessary action for MEPA to take now because the current Silver Line project as proposed by the MBTA, lacking plans for alignments between the Transitway and Boylston Street and between Washington Street and Boylston Street, as well as a vehicle compatible with the entire project, is not viable. **AU23**

Sincerely,

Washington Street Corridor Coalition

Mary Cooney
South Boston Environmental Health Watch

Cc: Andrew Brennan

South Boston Environmental Health Watch and Washington Street Corridor Coalition

Comment AU22: Both groups [South Boston Environmental Health Watch and Washington Street Corridor Coalition] believe that the full build Silver Line should be a light rail system to maximize capacity, compete with private auto use, and minimize air quality impacts in the neighborhood.

Response: The entire Silver Line service is being designed so that it may accommodate a conversion to light rail in the future, if appropriate. At this point, however, the MBTA believes that the BRT service on both of these segments is appropriate and that waiting until light rail can be built will only delay the implementation of high quality transit to neighborhoods in need of this service.

Comment AU23: [T]he MBTA has not submitted studies or analysis to prove the infeasibility of light rail for either the Washington Street Replacement service or the Piers Transitway as two separate or one connected system. ... We, therefore, request MEPA to require the MBTA to file a new environmental notification form for a light rail system. This is a particularly necessary action for MEPA to take now because the current Silver Line project as proposed by the MBTA, lacking plans for alignments between the Transitway and Boylston Street and between Washington Street and Boylston Street, as well as a vehicle compatible with the entire project, is not viable.

Response: There is not a requirement to prove that the light rail is "infeasible" as there was on the Arborway line restoration. The commitment for service on the Washington Street corridor, as agreed to by EOTC and DEP in its transit commitments Administrative Consent Order dated September 1, 2000 was for 60-foot articulated CNG buses from Dudley to downtown. The Transitway service, as described in that same ACO, was for 60-foot dual mode buses. The alternative analysis for both of these corridors (that is, the analysis comparing light rail to bus or other alternatives) was submitted to MEPA in several different documents over the past 15 years. MEPA issued certificates of adequacy for the use of BRT service along each of these corridors, as well as for the full build Silver Line. The MBTA,

however, has stated its clear intent to look at the feasibility of light rail at future points.

05-15-01 P02:51 IN

BG

84 Prince Street
Jamaica Plain
MA 02130

Mary Beth Mello
Deputy Regional Administrator
Federal Transit Administrator
55 Broadway
Cambridge MA 02171

RECEIVED
MAY 15 2001
MEPA

Secretary Robert Durand
Executive Office of Environmental Affaris
251 Causeway Street
Suite 900
Boston, MA 02114

Dear Madam/Sir,

These are comments related to EOEA #11707 and EOEA #6826.

Comments on the Southhampton Street Maintenance Facility.

The configuration of the maintenace facility needs to be spelled out in more detail. The vehicle for the South Boston Piers Transitway has been chosen as a Low Floor dual mode diesel electric bus to be operated with low sulfur diesel fuel. In addition the site will be a fueling, storage and maintenance facility for CNG buses. More detail needs to be specified in how these buses will
coexist.

The dual mode diesel electric bus for the South Boston Piers transitway will be operating in a salt air environment (Boston Harbor) and presumeably will need to be washed thoroughly every day to prevent an excessive rate of corrosion. I did not see anything in the April, 2001 submission by the MBTA addressing the special problems of maintaining vehicles in a seaside environment.

Comments on the Silver Line Annual Update

The ridership estimates for the South Boston Piers Transitway appear to be on the high side, at least in the near term, given the current stage of development in the waterfront area. Since the MBTA Route 7 bus will continue to run it doesn't look like there is any need for the South Boston Piers Transitway route to the Boston Municipal Industrial Park (BMIP). AU24

I would like to see a detailed configuration of the Washington Street Replacement Service (Silver Line) bus route – especially the configuration at Dudley Bus Terminal to Melnea Cass and
the Temple Place end. Will there be a place to layover? Will there be any changes in allowable parking? How will headways be maintained when the route runs in mixed traffic? What is the justification for calling the Washington Street Replacement Service Bus Rapid Transit? **AU25**

Sincerely yours,

Karen Wepsic

Karen Wepsic

Karen Wepsic

Comment AU24: The ridership estimates for the South Boston Piers Transitway appear to be on the high side, at least in the near term, given the current stage of development in the waterfront area. Since the MBTA Route 7 bus will continue to run it doesn't look like there is any need for the South Boston Piers Transitway route to the Boston Marine Industrial Park (BMIP).

Response: The ridership estimates were developed by running the CTPS regional model for this area. The MBTA believes that the ridership, as well as the pace of planned development, still warrants service to BMIP.

Comment AU25: I would like to see a detailed configuration of the Washington Street Replacement Service (Silver Line) bus route - especially the configuration at Dudley Bus Terminal to Melnea Cass and Temple Place end. Will there be a place to layover? Will there be any changes in allowable parking? How will headways be maintained when the route runs in mixed traffic? What is the justification for calling the Washington Street Replacement Service Bus Rapid Transit?

Response: The route for Silver Line Phase I prior to completion of Phase III will be as follows:

- Beginning at Dudley Station, the inbound Silver Line will travel along Warren Street to the intersection of Washington Street. Outbound service to Dudley Station will use Washington Street at Dudley Square.

- From Dudley Square, both the inbound and outbound Silver Line will use Washington Street to and from Stuart/Kneeland Streets. Priority bus lanes will be provided between Melnea Cass Boulevard and Herald Street, and the outbound Silver Line between Herald and Berkeley Streets will travel in its exclusive contraflow lane.

- From Stuart/Kneeland Streets the inbound Silver Line will continue up Washington Street to Temple Place where it will turn left to a layover stop.

- From Temple Place, the outbound Silver Line will turn left on Tremont Street to Stuart Street, and then right onto Washington Street.

Parking will be restricted at stations and along Temple Place to insure passage of the Silver Line buses.

The route for the Silver Line after the completion of Phase III will be the same as Phase I except, rather than using the Washington Street/Temple Place/Tremont Street/Stuart Street loop, the inbound and outbound Silver Line will use the new tunnel just north of the Washington and Oak Street intersection, connecting to the New England Medical Center, Boylston, Chinatown, and South Stations and new the new stations in South Boston and terminals at Logan Airport.

Along with the construction of Phase I, the Silver Line will be equipped with a state-of-the-art Intelligent Transportation System (ITS) which will:

- Be capable of triggering the next approaching traffic signal cycles for advancing the Silver Line along the route.

- Be connected to Bus Operations located at 45 High Street which will monitor and control the locations of each vehicle in service and be able to communicate with each Silver Line vehicle along the route in order to maintain headways.

- Automatically provide Silver Line Bus arrival/departure information to the public at all Silver Line station locations and to the "allaboutsilverline" web site.

The MBTA has incorporated the principals of Bus Rapid Transit in the development of the Silver Line. BRT combines the flexibility of a surface bus system with the service characteristics of a more traditional light rail transit system. This approach integrates exclusive transit rights-of-way such as tunnels or bus lanes with surface routes operating in general traffic. Using this combination of routing options, the MBTA can feed multiple bus routes with large coverage areas into a high capacity line on exclusive right-of-way. Bus location and headways will be monitored and maintained with the incorporation of the ITS system which will also provide riders with bus arrival information at stations. As a result transit riders on the Silver Line will be provided with a high level of service.

The Silver Line will have transit priority lanes with surface stations on roadways with sufficient right-of-way, and will operate in mixed

traffic on streets where priority lanes are not possible. In the downtown area, the buses will use tunnels with underground stations to facilitate movement and provide intermodal connectivity. As a result, the BRT approach will enable the MBTA to facilitate access from neighborhoods in all directions to the job centers in Boston.

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Boston, MA 02202

ARGEO PAUL CELLUCCI
GOVERNOR

JANE SWIFT
LIEUTENANT GOVERNOR

BOB DURAND
SECRETARY

August 9, 1999

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CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS ON THE NOTICE OF PROJECT CHANGE

PROJECT NAME	: Washington Street/Silver Line Transit Service and Roadway Improvements / South Boston Piers Transitway
PROJECT MUNICIPALITY	: Boston
PROJECT WATERSHED	: Boston Harbor
EOEA NUMBER	: 11707/6826
PROJECT PROPONENT	: Massachusetts Bay Transportation Authority (MBTA)
DATE NOTICED IN MONITOR	: May 25, 1999 (Silver Line) February 25, 1998 (Transitway)

Pursuant to the Massachusetts Environmental Policy Act (G.L. c. 30, ss. 61-62H) and Section 11.10 of the MEPA regulations (301 CMR 11.00), I have reviewed the Notice of Project Change (NPC) submitted on this project (formerly two projects) and hereby determine that it does not requires the preparation of a Supplemental Environmental Impact Report (SEIR).

The proposed Silver Line will link two previously separate projects, the South Boston Piers Transitway (EOEA #6826) and the Washington Street Corridor Transit Service (EOEA #11707), in a single service that will extend from Dudley Square in Roxbury through downtown to the South Boston waterfront. When complete, the project will provide significant transportation, air quality, and urban revitalization benefits to affected communities and the entire Boston region. I particularly note that the communities along the Washington Street corridor, which are among the most transit-dependent in the Boston area, have already waited too long for replacement transit service for the Orange Line, which was relocated to the Southwest Corridor in 1987. It is only when the full Silver Line is complete, providing service from the Washington Street corridor that directly connects to all the other transit lines in downtown Boston, that the state

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transportation agencies will have satisfied the long-standing commitment to provide a true replacement for the old Orange Line.

Because of the complexity and geographic scope of the project, and its phased implementation, in retrospect it is clear that the Silver Line would have been well suited for the Special Review Procedures that are now available under the MEPA Regulations. Even after this NPC, I acknowledge that there remain significant outstanding issues that will require further study and public review as the various elements of the Silver Line move toward completion. It is my judgment, however, that requiring a SEIR would not be the most productive way to address these issues. Instead, in this certificate I am requiring the MBTA to file a revised Section 61 Finding documenting its mitigation commitments for the entire Silver Line project. That Finding will contain a schedule and outline of future Annual Updates for the project. The requirement to revise the Section 61 Finding will not affect the MBTA's ability to proceed with procurement of the vehicles for the Transitway and Washington Street sections, or to proceed with the reconstruction of the Washington Street roadway.

PROJECT HISTORY

Until recently, the Silver Line project was treated as two separate projects for purposes of MEPA review: the South Boston Piers Transitway and the Washington Street Corridor Transit Service. The ENF for the Transitway was originally filed in 1987, and the Final EIR was found adequate in 1994. In February 1998 the MBTA filed an NPC that proposed substituting a 40-foot-long dual-mode bus for the 60 foot-long electric trolley vehicle that was described in the FEIR.

Planning for a new transit service in the Washington Street corridor to replace the elevated Orange Line began before the old Orange Line service was discontinued in 1987. The current proposal for a two-phase project, beginning with a surface connection along a reconstructed Washington Street, and following with a tunnel connection that will link Washington Street to the Transitway, was first described for MEPA review in an ENF filed in July 1998. The document under review is a response to the Secretary's scope on that ENF, as well as to issues raised in the initial review of the February 1998 NPC on the Transitway.

DISCUSSION

Following the structure of the NPC, I have divided this certificate into three sections. Section A consists of the first phase of the South Boston Piers Transitway, from South Station eastward through South Boston. Section B consists of the first phase of the Washington Street transit service, from Dudley Square to Downtown Crossing. Section C consists of the tunnel section between New England Medical Center and South Station that will link the two initial phases of the project and create the Silver Line as a unified service.

Section A

Vehicle Type. In this NPC, the MBTA has returned to its previous plan, identified in the FEIR, to use a 60 foot long, articulated vehicle in the Transitway. However, unlike the electric trolley identified in the FEIR, the vehicle will be a dual-mode bus that is designed to operate on an electric overhead catenary in the tunnel and on a low emission diesel-powered "GenSet" along its surface routes. The MBTA should provide in a future Annual Update more detailed information from the selected manufacturer on the air quality performance of the vehicles.

Operational Issues. The NPC/Response to Comments demonstrates that the Transitway tunnel in South Boston will have the capacity to accommodate both Transitway/Silver Line and Massport's Airport Intermodal Transit Connector (AITC) (EOEA #10235) vehicles servicing Logan Airport. However, the documentation is not clear how the proponent will coordinate the Transitway service with the AITC, and what the environmental and operational implications may be. In a future Annual Update, the MBTA should submit an operations plan for the Transitway that shows a schedule of what operations (headways) will look like at various stations. How many vehicles will stop at a given station (Silver Line and AITC) during a weekday peak hour and what will be the waiting times between vehicles? The operations plan should identify fares on the AITC and the impacts of any proposed AITC fare on Silver Line service.

The NPC also indicates that the proponent is undertaking new modeling efforts that incorporate the latest information on development and transit in the South Boston Piers area. A future Annual Update should include this analysis and fully explain any implications for ridership and scheduling. The assumptions used in the analysis should be consistent to the maximum extent possible with the ridership projections of the major developments (the Convention Center, Commonwealth Flats, and Fan Pier) in the area. I strongly urge the proponent to coordinate this analysis with Massport, the Convention Center Authority, and other large developers in the project area. I refer the proponent to my recent certificate on the Massport Commonwealth Flats Development Area Plan (EOEA #11882) for a more detailed discussion of transportation access to South Boston developments, and the critical role that high-quality transit service will play in making that development possible.

Maintenance Facility. The NPC states that the MBTA will not store or maintain Silver Line vehicles at the Arborway Maintenance Facility in Jamaica Plain, as previously stated in the Washington Street ENF. According to the NPC, all Silver Line vehicles, as well as vehicles for the AITC, will be housed on West First Street in South Boston. This facility was proposed as part of the Transitway project in the FEIR. Since the submission of this NPC, however, the MBTA has stated that it is considering alternatives to the location of the maintenance facility on West First Street. The alternatives include using an existing maintenance facility, such as the

Cabot Bus Facility, or moving the proposed Silver Line maintenance facility to a site in the South Hampton Street area (next to the MBTA Police Station).

In the current NPC, the MBTA states that if it decides to pursue any alternative location, a NPC will be filed with MEPA. (I would also consider any increase in the Silver Line fleet at the South Boston maintenance facility beyond the fleet size previously studied in the FEIR to require an NPC.) Any such future NPC should identify the alternatives considered for the maintenance facility. A traffic analysis of both employee and operating vehicle routes to and from the facility should be developed for adjacent roadways. Access drives should be identified on a site plan, as well as the location of buildings, parking, fuel storage areas, and other facilities proposed for the site. The NPC should describe in detail maintenance operations, building size in square feet, the maximum number and types of vehicles to be stored, and the amount of fuel storage. Other issues to be addressed potentially include wetlands, drainage, Chapter 91 Waterways licensing issues, air quality (existing/proposed), water consumption, wastewater generation, noise (existing/proposed), historic/archaeological issues, existing hazardous waste conditions at the site, the storage of hazardous materials, proposed mitigation, response to comments on the maintenance facility, and the state permits required for the project.

Section B

The Washington Street corridor component of the Silver Line involves the reconstruction of the roadway and sidewalks along Washington Street from Dudley Square to Avenue de Lafayette, to be constructed by the Massachusetts Highway Department. The reconstruction will involve new surface transit stations along the length of the route, as well as widened sidewalks and other pedestrian streetscape improvements intended to enhance the urban design character and economic vitality of the communities along the corridor. The MBTA will initially run 60 foot long articulated compressed natural gas (CNG) vehicles along the corridor.1 Upon the completion of Section C, the MBTA will likely change to the same vehicle type being used in the Transitway.

The 1998 scope required an analysis of alternative lane layouts (i.e., center lane versus side lane transit reservation). The NPC provides a qualitative discussion of these alternatives, based upon the community-based design review process conducted by the Boston Redevelopment Authority and the Boston Transportation Department. That process began with the formation of the

1 Several commenters have voiced concern that the proponent's commitment to use CNG or other clean-fuel type vehicles on the Washington Street corridor may be reversible. The use of clean-fuel vehicles is an integral part of this project, which must be incorporated into the mitigation commitments encompassed in the revised Section 61 Finding. Any departure from that commitment (other than the potential substitution of dual-mode vehicles in the full tunnel alignment) would be a project change requiring further MEPA review.

Washington Street Design Oversight Committee in 1997. The preferred side reservation alternative has been endorsed by the Design Oversight Committee. The strong involvement of the city agencies in this aspect of project design is consistent with Executive Order 385, which requires state agencies to consider local growth management planning in their transportation infrastructure decisions. I am satisfied that the selection of the side lane configuration meets the primary criteria of maximizing urban design benefits and maintaining traffic flow, while it preserves the possibility of changing the service to light rail in the future.

Several commenters have requested that I require further MEPA review of the MBTA's choice of bus service over light rail. In her August 1998 scope, former Secretary Coxe did not require the MBTA to analyze a light rail alternative, and I am not revisiting that decision now.

I note that the accommodation of bicycles in the Washington Street corridor continues to generate concern among many commenters. In response to these comments, in its final design the MBTA should consider alternative methods of accommodating bicycles in the corridor.

Section C

The Transitway FEIR described, as the second phase of that project, a tunnel connection from South Station to the Green Line station at Boylston Street. The full Silver Line will now extend that tunnel from Boylston Street through an existing disused tunnel to an at-grade connection with the Washington Street surface transit service near the New England Medical Center. The Section C Silver Line tunnel through Chinatown is proposed for completion in 2008. Because of safety concerns with CNG fuel in the tunnel, the vehicle choice for the full-build project will be the 60 foot dual mode buses that will be used initially in the Transitway (Section A), or a more technologically advanced version of the same.

In addition to the tunnel portal location previously shown in the ENF, the MBTA is considering an alternate tunnel portal in the block containing the former Don Bosco High School. Once the final portal location has been selected, including the station location and any below-grade link to the Orange Line station, the MBTA shall file the information in an Annual Update. The Update should evaluate any additional environmental impacts caused by the extension of the tunnel, including the potential historical/archaeological issues of constructing the Boylston Street tunnel turnaround loop and the tunnel section to the New England Medical Center. The analysis should also confirm whether there has been any effect upon Section C from new development projects that have been proposed and/or reviewed in the area of the Transitway tunnel segment since the completion of the Transitway FEIR.

The expanded tunnel segment will be the key piece for unifying the Washington Street and South Boston sections into a cohesive transit line. The tunnel segment is also critical in ensuring that

the Washington Street corridor has an efficient transit link to the downtown core. The tunnel segment is thus key to ensuring that the Silver Line can function as a true transit replacement service for the old Orange Line. Therefore, the updated Section 61 Finding for the entire project (discussed below) must commit to a timetable for design and construction of Section C. Either that Finding or the first project Annual Update (also discussed below) should include sufficient information to demonstrate that the proponent has the financial resources to implement the tunnel segment within the specified schedule.

SECTION 61 FINDING AND SUBSEQUENT SUBMISSIONS

A Section 61 Finding for the South Boston Piers Transitway was filed in April 1995, after the completion of review of the FEIR. That Finding has not been revised. This NPC does not contain any Section 61 Finding covering the Washington Street corridor. Therefore, the MBTA must revise and expand the Section 61 Finding for the Transitway to cover the full Silver Line project. The availability of that revised Finding, in draft form, shall be noticed in the *Environmental Monitor*, and copies shall be circulated to all parties who commented on this NPC. Following a comment period of at least 20 days by the public and EOEA, the proponent shall finalize the Section 61 Finding and submit it to the MEPA Office.

As noted above, this NPC has unavoidably left unanswered a range of important questions regarding the implementation of the full Silver Line. The revised Section 61 Finding shall contain a schedule and outline of future public informational submissions, to be issued annually if not more frequently. The contents of these Annual Updates, the availability of which shall be noticed in the *Environmental Monitor*, shall include the following:

- Ridership estimates for the full Silver Line, as well as for each individual first-phase component;
- Manufacturer's design and performance standard for the dual-mode vehicle to be used in the Transitway, and for the clean-fuel vehicle to be used on Washington Street;
- Discussion of the consistency of the vehicle types and performances with any applicable EPA policies and guidelines;
- Operations plan for the Transitway, including full details of coordination with AITC service;
- Revised station design for Boylston Street, showing continuation of tunnel;
- Final tunnel portal and station design at New England Medical Center, including below-grade connection to Orange Line station, if feasible; and
- Details of federal funding submission for Section C tunnel, and schedule of final design and construction to meet 2008 completion date.

Prior to filing any Annual Update, I recommend that the proponent schedule one or more public

meetings on the affected sections of the Silver Line, as recommended by the Alliance of Boston Neighborhoods, to provide all parties an opportunity to hear the proponent's most current information on the project.

August 9, 1999
DATE

Bob Durand

Comments received (one additional page):

6/23/98	Webb Associates
6/26/98	Tsoi/Kobus & Associates
12/31/98	Massachusetts Coastal Zone Management Office
3/29/99	The Franklin Park Coalition
4/1/99	Seaport Alliance for a Neighborhood Design
4/2/99	Boston Transportation Department
4/2/99	Boston Water and Sewer Commission
4/5/99	Massachusetts Sierra Club
4/7/99	Boston Environment Department
5/17/99	Boston Water and Sewer Commission
5/18/99	Seaport Alliance for a Neighborhood Design
5/21/99	John Kyper
6/4/99	Maureen Monks
6/9/99	Mello Fuel Company
6/10/99	Henry Allen (CPCAY)
6/10/99	Mark Legere (CPCAY)
6/11/99	Boston Water and Sewer Commission
6/14/99	Seaport Alliance for a Neighborhood Design
6/15/99	Massachusetts Sierra Club
6/15/99	Karen Wepsic
6/15/99	The Arborway Committee
6/16/99	Laconia Associates LLC
6/21/99	Stephen H. Kaiser
6/21/99	Old Dover Neighborhood Association
6/23/99	Boston Redevelopment Authority
6/25/99	South End Community Health Center
6/25/99	Boston Freight Terminals
6/25/99	David Rohrlich
6/28/99	Washington Street Corridor Coalition
6/28/99	South Park Associates, Inc.

6/28/99	Boston Archdiocese, Planning Office for Urban Affairs
6/29/99	Boston Office of Business Development
6/29/99	Greater Boston Chamber of Commerce
6/29/99	Massachusetts Sierra Club
6/29/99	The Franklin Park Coalition
6/29/99	Massachusetts Convention Center Authority
6/29/99	Boston City Councillor Gareth R. Saunders
6/29/99	Bike Boston
6/29/99	John Kyper
6/29/99	Clean Buses for Boston
6/30/99	GTI Properties
6/30/99	The Boston Harbor Association
7/1/99	Massachusetts Coastal Zone Management Office
7/1/99	Spaulding & Slye
7/2/99	Liberty Tree Associates LLC
7/13/99	Conservation Law Foundation
7/13/99	Massachusetts Sierra Club
7/13/99	Massachusetts Bay Transportation Authority
7/15/99	Department of Environmental Protection NERO
7/15/99	Boston Transportation Department
7/16/99	Boston Environment Department
7/16/99	Fenway Action Coalition
7/16/99	Alliance of Boston Neighborhoods

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Massachusetts Bay Transportation Authority

Jane Swift, Governor • James H.Scanlan, Secretary and MBTA Chairman • Michael H. Mulhern, General Manager